

# FUTURE

PRICE IN  
1/-  
G.T. BRITAIN

SCIENCE FICTION *stories*

20¢

**THEY  
WILL  
DESTROY**

by Bryce Walton

**NOT QUITE  
HUMAN**

by Emil Petaja

**FALSE  
PROPHETS  
SHALL  
RISE**

**SPECIAL ARTICLE**

by L. Sprague  
de Camp

**ALL STORIES  
NEW  
No Reprints**



DOUBLE-ACTION  
MAGAZINE

# "Give Me Your Measure and I'll Prove in the First 7 Days You Can Have a Body Like Mine!"

No other Physical Instructor in the World has ever DARED make such an offer !

I'LL give you PROOF in 7 days that I can turn you into a man of might and muscle. Right in the first week you will see and feel the improvements ! Then I continue to rebuild, renew and "overhaul" your body. Soon you are the proud owner of a powerful build like mine. People will notice the ruddy glow of health in your face, the sparkle in your clear eyes, the breadth of your shoulders. You will be the fellow who will walk off with the prettiest girl and the best job. Post the coupon below for a FREE copy of my new book. It reveals the secrets that changed me from a 7-stone weakling into a husky who won the title of "The World's Most Perfectly Developed Man."

Are you underweight? I'll add pounds where needed ! Are you fat in spots? I'll pare you down to fighting trim !

And I'll also give you rugged health that banishes constipation, indigestion and similar conditions that rob you of the good things of life !

## I've No Use For Apparatus

I haven't any need of apparatus that may strain your heart and other vital organs. I don't dose or doctor you. DYNAMIC TENSION is all I need. It's the natural, tested method for developing real men inside and out. It distributes added pounds of powerful muscles over your body, gets rid of surplus fat and gives you the vitality, strength and pep that win you the admiration of every woman and the respect of any man.

Get my FREE Book, *Everlasting Health and Strength*. Post the coupon to-day. Gamble a stamp to prove I can make YOU a new man !



**NOTE.** This is a photo of Charles Atlas. This is not a studio picture but an actual untouched snapshot.

### Puts FIVE INCHES on Chest

"Chest gained five inches; arms two inches. Nervous troubles, constipation gone. Feel like a new man."—G.T.F.

### Gains 20 lbs.

"Gained 20 lbs. Biceps 15 1/2 inches, and large, powerful shoulders. Rest of my body well-proportioned and hard as a rock."—H.S.

### Results in ONE WEEK !

"Just a week ago I started. What a difference already ! Before my chest was 32 inches normal, 36 expanded. Now it's 35 1/2 inches normal; 38 1/2 inches expanded."—F.S.

## 48-Page Book FREE

It tells you all about my special DYNAMIC TENSION method, and what it has done to make big-muscled men out of run-down specimens. It shows you, from actual photos, how I have developed my pupils to the same perfectly-balanced proportions of my own physique. What my system did for me and these hundreds of others it can do for you too ! Don't keep on being only half the man you CAN be ! Find out what I can do for you. Where shall I send your copy of *Everlasting Health and Strength*? Put your name and address on the coupon and post it to me TO-DAY ! Address to : CHARLES ATLAS, (Dept. 141-H), 2, Dean Street, London, W.1.



**CHARLES ATLAS** (Dept. 141-H),  
2, DEAN STREET, LONDON, W.1.

I want the proof that your system of DYNAMIC TENSION can make me a New Man. Send me your book, *Everlasting Health and Strength* and details of your amazing 7-DAY TRIAL OFFER.

Name ..... (please print or write clearly)

Address .....

# FUTURE

SCIENCE FICTION *stories*

Robert W.  
Lowndes,  
*Editor*

★ ★ *Feature Novel* ★



QUEST OF THE QUEEN ..... Ross Linden 8

Chris Lane follows a hunch his reason tells him to be romantic nonsense into a startling biological discovery, and an amazing interplanetary quest—the quest of Myrna!

*An Unusual Novelet*

THEY WILL DESTROY ..... Bryce Walton 42

Incredibly returned from Andromeda, Conrad and Kaye find Earth ruled by the strange scientific mysticism of the followers of Shiva—The Destroyers.

*Short Subjects*

FALSE PROPHETS SHALL RISE (Article) ..... L. Sprague de Camp 69

NOT QUITE HUMAN ..... Emil Petaja 74

Dorcus' discovery can insure any man's love forever...

THE AWAKENING ..... Arthur C. Clarke 83

Marlan wants to learn one more thing before he dies...

*Departments*

TODAY AND TOMORROW ..... 68 DOWN TO EARTH ..... 86

FROM THE BOOKSHELF ..... 82 READERS' PREFERENCE PAGE 98

*Cover by Milton Luros (see page 68)*

*Interior Illustrations by Finlay, Kiemle, Luros, and Poulton*

FUTURE SCIENCE FICTION STORIES, published bi-monthly by COLUMBIA PUBLICATIONS, INC., 1 Appleton Street, Holyoke, Mass. Editorial and executive offices at 241 Church Street, New York 13. New York. Entered as second class matter at the Post Office at Holyoke, Mass., under the act of March 3, 1879. Entire contents copyrighted 1951 by Columbia Publications, Inc. 20¢ per copy; yearly subscription \$1.20. When submitting manuscripts, enclose stamped, self-addressed envelope for their return, if found unavailable. The publishers will exercise care in the handling of unsolicited manuscripts, but assume no responsibility for their return.

# Time Killer

*by Charles Bye*

(illustration by Luros)

The machine showed Moxel how he would die, but Moxel decided that fore-warned could be fore-armed!

**M**OIXEL'S eyes glittered in the sullen light of the cavern. He stood expectantly in front of the cloudy, opalescent globe suspended by invisible energy poles from the crab-shaped machine below it.

For awhile, there was silence. Then the machine continued, its thoughts echoing and thundering in Moxel's brain. "I repeat, I cannot predict the outcome of the change. The sole purpose of my creation was to produce the future in miniature, for the observer to toy with as he wishes. Put on the thinking cap and concentrate on what portion of your future you wish to observe. The timebinder, becoming transparent, will reveal that portion. I am constructed so that I can say no more."

As the machine finished, a shiny metal cap, snake-like, on the end of an oily cable shot up to Moxel's side. He placed it cautiously on his head, and almost immediately, his brain felt like a pin cushion filled with hundreds of tiny needles. A cloud of pain fell across his consciousness. Reaching up to tear the cap off, his eye caught the opaque globe which was now pulsing with a reddish glow; slowly dissolving into transparency the entire cloudy sphere. The prickling stopped, leaving his brain as clear and transparent as the time binder.

Moxel voiced his thought aloud, "How am I to die?"

Simultaneously, the globe exploded into millions of iridescent pieces. Spinning madly around and around, they formed impossible planes and

"There's an old saw, 'If I knew where I was going to die, I'd stay away from the place!' But an accurate death-prediction would take this fact into account, a matter which the victim is likely to overlook."

angles that hurt Moxel's eyes and cut his thoughts to ribbons.

After what seemed eons, the squares and cubes began dropping into place. A curved horizon and uneven plane took shape, then a miniature, space-suited figure, three inches high, came into being, walking across the terrain. Moxel smiled as he recognized the figure. Just as he had suspected—it was Thorn! The grotesque hunchback, in his specially constructed space suit, was recognizable anywhere. Sometime there in the future, Thorn must be about to kill him. Well, he wouldn't wait to see it happen.

Quickly, he plunged his thumb into the transparent sphere, then slowly pressed downward into the small of Thorn's back. Jerking his head around to see what was happening, Thorn went sprawling on his face. Moxel laughed as he watched the hunchback squirming under his thumb. Applying more pressure until he felt things snap, Moxel withdrew his thumb, still laughing. He hoped Thorn was still conscious so that he could feel the intense agony of having every bone in his back and chest broken.

With a sigh of satisfaction, Moxel removed the thinking cap and watched the timebinder return to



AN ENORMOUS THUMB PRESSED DOWN

cloudy opalescence. Faintly hissing, the metal cap and cable slid back into one of the machines crab-like arms. Replacing his space suit head-piece, he stepped through the double doors connecting the strange air-filled room with the rest of the half-buried city.

Somewhat triumphantly, Moxel strode down the long, dimly lit corridor towards the tiny splash of light marking the entrance to the ruins. The weird lighting and perspective gave him the feeling that

he was walking up through the wrong end of a spy-glass, with the opening many more leagues off than it really was. The powerful echo of his footsteps was comforting and appropriate. He was on the threshold of becoming the richest, and consequently one of the most powerful, man in the galaxy—with Thorn out of the way.

• **M**OIXEL WASN'T QUITE sure just when he had decided that Thorn was trying to do away with him. They been together now, for over two years; most of that time, cooped up in the survey ship, *Aris*. He knew Thorn like he knew the nose on his face. It wasn't like himself or Thorn to be careless. A reasonable number of mishaps was to be expected on a flight of this length, in such a forsaken corner of the galaxy. But ever since their landing on the fourth planet of the blue-white binary Ama, too many mishaps had occurred. All of them couldn't have been accidents; especially when coupled with the significant fact that they had discovered two dozen palladium nuggets among the ruins of one of the ancient cities near their base. Normally, they wouldn't have established a base, but this was the planet on which the star ship, *Universe* was to meet them, and take them back to earth. The *Universe* was only a month away and already had been detected on the astroscope.

When the star ship was first spotted, Thorn had laughingly said, "Well, Moxel, soon we'll be back on the green hills of earth, each with a tidy palladium fortune in his pocket. It would really be a joke if something happened to one of us now. Of course, with the entire two dozen nuggets—providing we don't find anymore—one of us could live like a king for a hundred lifetimes."

The next morning, Moxel had gone into the survey ship's laboratory to don his space suit where he had left it the night before. Upon his stepping out onto the airless world, there had been a sharp swish, collapsing him, suffocating, into a heap. It had been all he could do to reach the

airlock button, push it, and clamber back inside before he lost consciousness. Examining his suit he had discovered a ragged hole under the left armpit. Going back to the lab, he had found a broken vial of hydrochloric lying on the bench where his suit had been all night. Fortunately, they each had a dozen suits left.

Thorn had jeeringly accused him of carelessness. True, he had been careless about checking his suit; but the acid? While asleep, Thorn could have arranged the acid; already having observed that he had not been checking his suit the past few mornings. Then if the scheme did go amiss, as it had, the whole thing could be blamed on his own haphazardness. Closing the incident, Thorn had repeated his remark of the night before, "It would really be a joke if something happened to one of us now."

This morning they had split up; Moxel taking the survey ship to one side of the tiny planet, and Thorn, the smaller space boat to the other. Now, if any more palladium was found by either of them, there would be no splitting.

Moxel, even now, still found it a little hard to believe that Thorn had intended to kill him. He smiled at the thought, because Thorn was dead now—somewhere in the future.

The whole thing suddenly seemed fantastically simple to Moxel. The sealed room among the ruins; the

telepathic timebinder; the appearance of Thorn at his question. Of course, Moxel hadn't waited to see just how he was to die—why should he have? His suspicions had been correct regarding Thorn. When Thorn tried killing him at some future date, his thumb would come crushing down on him!

**A**S MOXEL STEPPED OUT OF the ruins, and into the survey ship, a chill went through him. He thought he sensed a tingle of sardonic laughter, coming from far below the debris of the half-buried city.

Shrugging off the uneasy feeling, Moxel removed his suit and flung it inside the space locker with the others. He could afford to be a bit careless now, with the expedition a month off, and Thorn no longer a worry. He would explain to the expedition, showing them the time binder; exactly what had happened to Thorn, and why.

In the future, once Thorn was actually out of the way, he would start worrying about being careless. But why, even then? All he need do was to pay another visit to the time binder and find out the next way he was going to die.

Again, feeling very much at ease, Moxel climbed into the control chair and pushed the energizer. As the hum of the converter cut through the stillness, he surveyed the surround-



ing terrain. Getting the ship out of the tumbled ruins, with three of the six keel tubes blown, was going to be tricky. Using the braking rockets, getting in had been easy; but they would be of no use, now. Thorn was right, he was getting careless. The only thing to do was to swing the ship around in the direction of the farthest object blocking his path; turn on all aft and remaining keel tubes, and hope to earth he got off before striking the pile of rubble at the end of his run.

After turning the ship into the path offering the farthest protruding resistance, he jabbed the take-off button. Responding with a lunge, the ship streaked towards the rubble, gaining precious altitude. He was going to make it—then there was a pop, as another keel tube blew; followed by a tearing screech as the debris hit the lower half of the nose, shearing off the outer keel—then blackness!

The shrill hiss of escaping air brought him to his senses. The ship, pitch dark, was lying on its side. He had been thrown out of the chair harness into the left corner of the control panel. Groggily, he realized he had better get out before he became a frozen mummy, or the gases in the keel tubes ignited, blowing up the ship. Fortunately, the space locker was only a few feet away. Stumbling twice, he reached the locker and yanked out a suit, putting it on. It seemed bulky and cumbersome, but he could adjust that later. Locking the head-piece into place, he scrambled for the port airlock, checking the suit on the way.

The moment he hit the ground, he started running and didn't stop until the ship's exploding knocked him down.

Once he had regained his breath and risen to his feet, he started laughing so hysterically he wondered if he was going mad. What a fool he'd been—all that worry and fear about getting out of the ship! If he were to have died that way, the time binder would have shown it. He needn't worry about anything until Thorn was out of the way, in the past tense.

Regaining his composure, Moxel realized that the shock of the explosion must have registered on the pictorial seismograph in Thorn's ship. Which meant Thorn might be putting in an appearance any moment; to see what had happened, and to finish Moxel off if what had happened, hadn't. Thorn would soon spot him with the portable curve radar set.

Sure enough, glancing upward, Moxel saw the glowing tubes of the space boat. It swooped down for a landing behind a rise, now separating him from the crash.

So this was it, Moxel bitterly thought; the surrounding terrain suddenly becoming familiar as recognition clicked in his mind—the miniature landscape in the time-binder. At this very moment, Thorn must be creeping towards him. Any time now, his thumb would come forward from a few hours in the past, crushing Thorn before he could murder him.

Moxel started walking towards the rise—perhaps he would see his thumb come squashing down on Thorn—

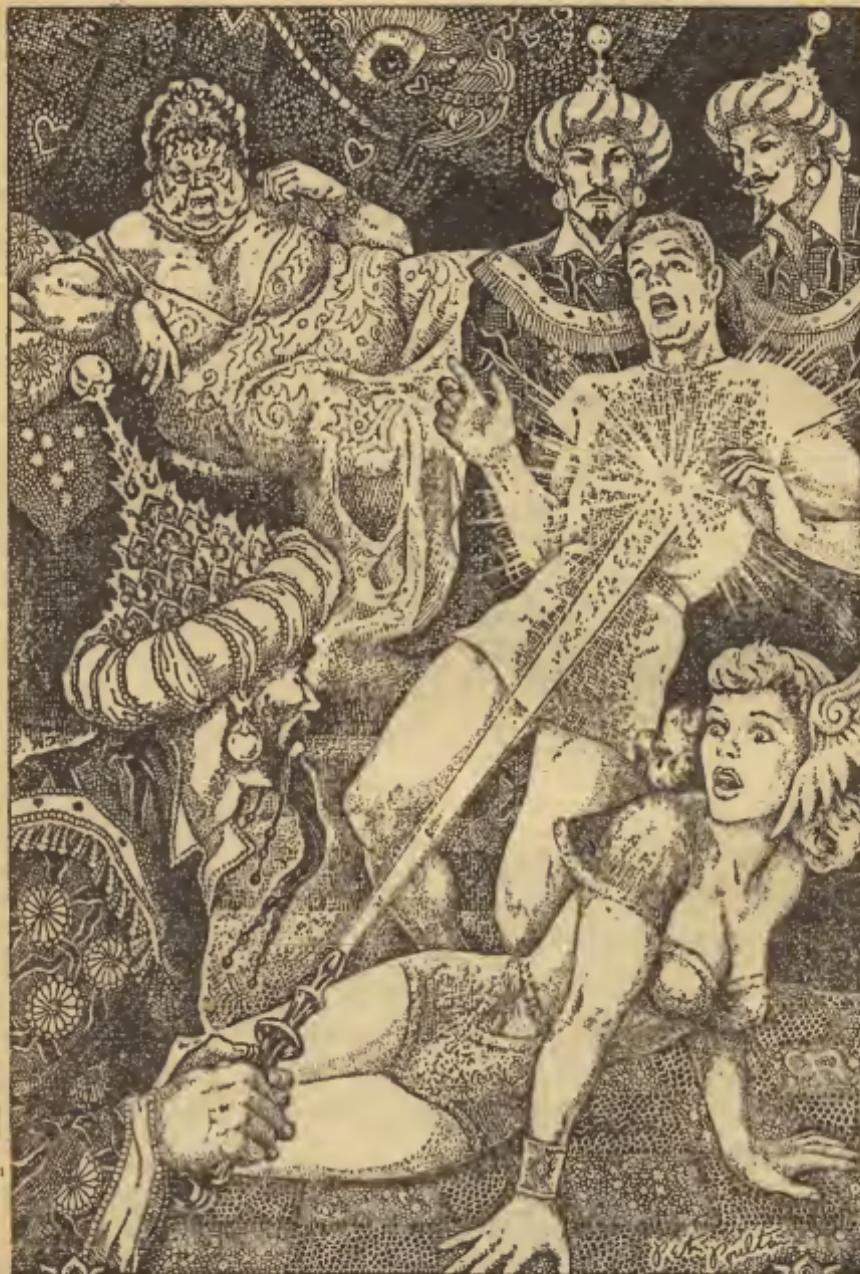
Suddenly, a vast shadow fell across the plain, blotting out the light from the stars. An immense weight pressed into the small of Moxel's back, forcing him down with a sickening slowness, until his chest and head-piece were flat against the ragged terrain.

In an agony of pain, Moxel realized the time binder had deceived him! Thorn had never intended to kill him.

What had happened?

In spite of the razor-sharp pain in his back and chest, he managed to twist his head around—no wonder he'd had so much difficulty donning the space suit!

As the blackness of death slowly darkened his consciousness, he realized the timebinder had not tricked him after all; but had shown perfectly, himself being crushed to death by his thumb—in a hunch-backed space-suit looking like Thorn!



Mors raised the atom gun and blasted  
Lieutenant Sloan. Fumes of cooked  
flesh choked the other Earthmen.

# QUEST OF THE QUEEN

By ROSS LINDEN

Chris Lane could not help but think of the strange, caterpillar-like creature that emerged from the egg that came from the void as female, and as a "queen". A romantic notion, as Chris was the first to admit—but even in his wildest dreams, he never suspected how right he was!



CHRIS LANE wriggled in a massive structure which supported him in sitting position, feeling its every dimension expand or

contract to fit his body as it moved. In a manner inconsequently miraculous he lit a cigarette scarcely differing from those smoked by his ancestors a thousand years before his birth.

At forty Chris was as happy a youngster as Earth could show; he had work he loved passionately, and at least another two hundred years to perfect himself in it. Perhaps five

FEATURE NOVEL OF WORLDS BEYOND

hundred. Genius was perpetually astir in a science quite alien to his own seeking to prolong his useful existence indefinitely. While wishing them well in their endeavors, he gave little thought to that aspect of the future. He had his dreams, but the present eminently sufficed Chris Lane, assistant taxonomical biologist of the Earth year 2919.

He looked fondly over a vast enclosure which, in the absence of Doctor Jon Cutter, he controlled absolutely. A report of things seen from a passing space patrol had taken the impetuous doctor on a tour of personal inspection. Creatures, it was thought, very similar to the prehistoric serpent lizards of Earth.

So, master for a month, Chris looked about his indoor zoo, his acres of vats, cages, tanks and flying fields, with a thousand machines for controlling humidity, air pressure and density, for manufacturing, mixing and altering strange gases and liquids. In other words, for maintaining environments suitable to specimens captured throughout the Planets and beyond. Many, he thought, might well have been captured and materialized from the dreams of a dipsomaniac.

But Chris loved them all, however horrible, and attended to their needs more assiduously than to his own.

A screen lit behind his desk. A face appeared. "Got something for Doc Cutter," it announced.

"Bring it up," Chris said, and the face vanished. Somewhere he had seen

those rugged features, but in his memory no name attached to them.

They came, surmounting a tall, stocky body, and Chris shook hands with Captain Ivan Blore, of the I.S.P. Behind the captain two men staggered a little as they brought in an object. They set it down, with patent relief, and it rolled a bit, coming to rest against the desk. Blore covered a smile with his hairy paw as he watched the young scientist.

"But—but, Captain," Chris said. "Haven't you come to the wrong department? What could we do with that?"

Blore conquered the smile. "I took it to Carlson, over at metallurgy," he explained. "Carlson says it's alive, and told me to bring it here."

"Nonsense!" Chris said strongly. But he put hands on the object, and it turned on the insulated floor. It was much like a gyroscope, a toy of former centuries. A dozen hoops intersected at opposite axes. A double-dozen arms extended inwardly from the hoops, each tipped with a reflexed bearing surface. And each of the bearing surfaces impinged upon a ball somewhat smaller than the head of a man. The entire structure was of a metal strange to Chris, who was no expert in metals. Carlson would say—would not hesitate to say—that he was an ignoramus in such matters.

"About as alive as my desk," Chris observed, without emphasis; "just a minute, Captain."

He pushed a button that caused

No one, as yet has completely analyzed and dissected the human emotion which we call "love", in its most fully-expressed forms. Some science-fiction authors, notably, Dr. E. E. Smith, believe that should humans encounter alien beings, friendship might be possible, but it would be a long time before humans could actually "like" the other-worlders. Other science-fiction authors, notably C. L. Moore, consider the possibility of "love" transcending such matters as the form and shape of the loved one. It's good for an all-night argument almost any time, since there's no evidence either way; meanwhile, the Moore theory allows for more story-possibilities.

Carlson to appear on the screen, framed by a nebulous background of moving machinery. The Doctor of Metallurgy looked at the zoologist and grinned widely, saying nothing.

"I have your package, Doctor," Chris said.

"I can see it."

"A practical joke, no doubt."

The grin on the screen expanded. "You people want everything that's alive, don't you?"

"You claim there is life in this thing? In that central ball?"

"So my tests indicate. Try it yourself."

"We're not too well equipped for that. However." Chris took a plastoid case from a nearby cabinet, and a coil of coated wire equipped with a hydra-headed mass of assorted plugs, and two elastic bands pimpled with sockets. He placed a band about his head and ears, the other about the mysterious ball. He plugged into sockets in both bands and in the case.

A PALE GREEN light glowed and faded, glowed again and faded, at ten-second intervals. The incredulity on the young scientist's face changed to eager interest; he altered one of the plugs and, at another tiny window in the case, a needle danced in a red light, fluttered within fixed bounds.

"By Heaven," Chris breathed. "I believe it is!" He removed the apparatus and stared.

"Well, get going," Carlson told him, from the screen. "Take what you want; Captain Blore is waiting to bring the rest back to me."

"Yes?" Chris murmured. "Oh," he added, coming back to reality. "Yes, Doctor. I'll clip some of these arms, and keep the ball."

"I'm a busy man," Carlson said, "but I'll take the time to watch you." He grinned again.

Chris bore down with a pair of heavy metal shears; they failed to make a scratch. Whistling under his breath, he and one of the men rolled the strange contraption to a machine attached to power shears, used for

trimming thick cage supports. The machine groaned as it failed to cut through a rod scarcely bigger than a man's thumb. Chris stopped whistling under his breath; he applied a saw-blade which had never failed yet, and watched it slide upon the rod screeching in protest. Then Chris turned to the highly-amused face on the screen. "What kind of metal can this be?" he demanded.

"No metal at all."

"Nonsense," Chris said, for the second time.

"That stuff is cellulose. Wood. Plant fibre. Impregnated with some unknown element, then transformed by a mysterious process into an uncanny material harder and tougher than any metal in my department. Or in the universe, so far as I know. Do I express myself with clarity?"

"You sound delirious," Chris retorted. "What in the world am I supposed to do now?"

Carlson chuckled. "There's a man on his way," he said. "A torch will do it. We've nicked it a little, as you no doubt failed to observe. I just wanted to see you suffer with that—that supermetal. Ain't it wonderful, Chris?"

"I'll have to see it, first; must be a spore of some sort."

"No, no! That frame, I mean. That—new impervium. What the devil do I care about the handful of maggots inside?"

"Stuff for more machines. Haven't we enough?"

"Monsters and diseases and parasites. Ain't you ever satisfied?"

Both laughed, as a man entered trundling a burning machine bristling with accessory gadgets.

"I see Bill has arrived. He'll divide what is yours from what is mine. Captain Blore?"

"Yes, Doctor."

"Lane will take care of his ball. The rest must return to me safely. This is vital, Captain."

"I understand, Doctor."

AN ION-KNIFE, in general appearance rather like a glass-cutter but

capable of generating intense heat that penetrated but the fraction of a millimeter, in time cut through the ball from space. From a packing of stiff insulation Chris reverently removed what was indubitably an egg. Judged from the standpoint of size, a turkey might have laid it; from its color and texture, a mammoth turtle. To Doctor Carlson it would have been as unimportant as if it had come from either, but to Chris Lane the thing was unique and therefore infinitely precious.

He queried Blore until the worthy captain could no longer hide his impatience. He had been crossing the orbit of Venus, on his usual run, and it was his communications officer who had noticed the object amidst a cloud of ordinary meteorites. It being part of his duties to act upon anything beyond the normal, he had been able with some difficulty to net the object. He had taken it to Doctor Carlson, and thence here. And what the hell? His bored countenance added.

No, he replied to an eager question, he had no idea where it could have come from. If a man made it, it was put there, of course. Dropped from a ship, presumably. To hatch in space? He wouldn't know. To reach another planet? How could it? Might it have come from Venus? Possibly. As yet there was no planet so thoroughly explored that almost anything couldn't secretly exist there. The captain regretted his stupidity but really, he insisted, he could be of no further help.



A new structure stood centrally in the experimental zoo. Its outer shell, of aluminum and laminated glass, could be entered only through an air-lock. Six flexible tubes led through humidifiers and connected with six pressure tanks containing different gases. A young jacaranda tree perfumed the inner atmosphere. Water ran in a stream six feet long to a pool a yard across. Ferns and other semi-aquatic plants bordered the miniature

river and lake. The rest was sand and sandy loam, supporting plants adapted to the conditions Chris Lane had, after long thought, decided upon. But he was prepared to change every condition within two minutes or less.

A wooden pedestal, hollowed at the top, held the precious egg.

Adjoining the cage was a warehouse containing every food known to be eaten by any bird, anywhere. From the midst of a book-mountain, Chris had combed the known universe for a thousand exotic grains. A sample of each had been ground to flour and mixed with various nutritious liquids to a paste. His collection of eye-droppers and pipettes gleamed like the pipes of an organ.

Other shelves were a zoo in miniature. Meal-worms, hundreds of small caterpillars, earthworms — wrigglers from here and everywhere. Tanks of water from Earth and other places, both fresh and saline, pullulated with small life. Worms, larvae, crustaceae and fish.

Chris was ready for whatever might come from that egg—he thought. Doctor Cutter returned, noted all this with smiling approval, and busied himself with his new acquisitions. They did not include a dinosaur, but the beast was there. He had seen its spoor and he would go back anon and follow it—he and Chris Lane—and there would be adventure at its end. They worked, and waited.



MONTHS passed, delightfully as always. The egg now rested on a thin metallic cup, suitably connected to an indicator at eye-level behind Chris' desk. Foods were kept fresh by constant replacement, or by reproduction.

Weeks passed. Chris was drafting a detailed description of a new life-form. He had to invent a word or two to symbolize certain peculiarities not otherwise describable. He was so absorbed in the exacting task that he



stared for some time at a flickering light without realizing what he saw or what it meant.

"Good Lord!" he cried then, and left his chair, running. On his knees he watched the egg vibrate. It rolled slightly, made a quarter-turn. A gleaming ivory point thrust through the egg-covering. Chris, without moving, summoned three assistants to him. He looked frantically about for Jon Cutter, but his chief was not in sight.

The ivory rose and fell, moving like the blade of an antique can-opener. It cut a slit the length of the egg, while four men needlessly held their breaths. Within the chamber was a semi-vacuum—half an atmosphere, with oxygen at point thirty-five. Eight hands rested on as many valves, ready to take or give; four minds willed the unknown creature forth.

A greenish billiard ball emerged and rose a handsbreadth, and four expelled breaths whistled simultaneously. Their sudden shock lay not in what they saw but in its difference from what they were expecting. The ball was topped by two protuberances like incipient horns, russet-colored above and fading imperceptibly into the pale green of all the rest. The lower portion of the ball ended in a pair of mandibles, and the whole of it was supported by a round column thick as a hammer handle. A pair of short muscular legs gripped the edge of the divided egg and pulled, whereupon another three inches of column appeared and other

pairs of legs took hold. It left the shell to stretch its entire nine inches on the rim of the wooden basin.

"The King of the Caterpillars!" one assistant cried. And then he laughed. The other two joined him, laughing a trifle too loudly, perhaps.

"What sort of grain shall I feed it, Chris?" one asked.

"Or how about a fresh shrimp?"

But Chris stared, oblivious to his companions. He had seen caterpillars as large, or even a little larger, but this small monster was the veriest infant. Fresh from the egg. It would grow; Heavens, how it would grow!

"Find Doctor Cutter," he said without turning. The larva rested its head on the wood and a quivering ran its length. Chris watched with practised eye and slowly depressed his valve. Carbon dioxide began to increase the density of the chamber atmosphere. He exulted inwardly as he saw the quivering decrease, and gestured to the man beside him, who fed in nitrogen. When the gauge indicated a three-quarter atmosphere the quivering ceased. The worm lifted its head.

Lungs filled outside with a reversed whistle. "No," one murmured, "I don't believe *that*."

"What—what is it, Chris?"

Two unnoticed slits had opened and the larva, the lowly worm from outer space, was calmly regarding them with eyes which, small as they were, might have belonged to a spaniel. Brown, humid, intelligent. Intelligently curious. They seemed fixed, for the green head revolved like that of an owl as the creature looked intently at each of the three men.

"Get Doctor Cutter," Chris pleaded.

"He is coming," a voice answered beside him, and the previous messenger kneeled. He met the brown eyes behind the glass. He damned himself with quiet fervor. "What is it, Chris?" he also asked.

"I don't know."

"Is that all there is of it? Do you

think—? But, Chris! It is sure to metamorphose. What then? A moth with a brain?"

"I don't know," Chris repeated.



CHRIS STOOD in the airlock crowded by sprays of leaves taken from every plant on the reservation. For an hour he endured considerable discomfort while the assistants played experimentally with their valves. At times the larva showed distress; at others an animation plainly abnormal; but finally they achieved an optimum of pressure, content and temperature endurable to Chris and obviously very satisfactory to the weird stranger.

Chris moved into the chamber and placed his collapsible stool near the pedestal. He was breathing deeply of the thin air and perspiring freely in its damp heat. A tropical jungle, at midday, in summer. Valuable data for his future guidance.

For a time it was like a game. One by one the caterpillar brushed leaf sprays with its head, then pushed them off the pedestal. It rejected them all and pushed aside mushrooms and other fungi with obvious annoyance. A botanist from the Planetary Gardens sat outside, keeping score; dozens of men scoured the countryside for new samples.

By nightfall the game had become a grim matter. Chris dismissed his aides after issuing crisp orders for action to commence with the dawn. He stood in the steaming chamber and looked down at the larva as any parent might at an ailing child. His right hand rested upon the edge of the pedestal. His left reached involuntarily to the creature, which closed its eyes. It trembled. Chris gently ran his fingers down its silky length.

The eyes opened. The larva moved, gracefully flowing, to his right hand, and the formidable mandibles opened.

Though knowing he stood a good chance of having a finger mangled, he left the hand where it was.

"*Meat?*" he thought. "*Could it be?*" It was worth the chance to find out, immediately.

But the mandibles closed softly on a finger, nibbling too gently to cause a twinge. The round head turned and brown eyes looked up into his. With affection, he was willing to swear. "*Why,*" he thought, "*it would smile if it had a smiling sort of mouth.*"

Aloud he said, "Tomorrow, baby. There will be food if I must personally strip every leaf off the planet."



DOCTOR Jon Cutter in person woke Chris before dawn. His face was reddened, his eyes even brighter than usual. "Been up in the snow," he announced. "All night."

"You don't say. Why?"

"Getting grub for that worm of yours."

Chris felt a trace of inexplicable annoyance. "Well, Doctor," he said, "I wouldn't exactly call her a worm. It's—"

"Her?" Cutter's eyes widened with interest.

"Uh—er—yes, I think so."

"Why?"

Chris tried to pursue the impulse without success. "I really don't know; I haven't thought of it, and there is no reason."

"Of course there is. You're probably right. An aura of femininity has impressed you subconsciously. At your age, it would."

"Don't make me blush, Doctor."

"A scientist recoils from calling a worm a worm. It's fascinating; I wish I were a psychologist."

"Now, Doctor—"

Cutter laughed uproariously. "I know how you feel," he spluttered. "I had a dog once—long ago—who had more human decency in him than I ever had. I respected the nobility of that animal so much that often I was ashamed to look into those big

brown unreproachful eyes. How could he have such love for a being so demonstrably inferior?

"But a worm! Pardon—I mean a lady, in disguise." He laughed still louder, and ceased only when he saw Chris' face as it lifted when the shoes were tied.

"Sorry, Chris. Meanwhile she gets hungrier every minute, eh? I was thinking on it last evening. Our vegetation may be too tame—too much cultivated for too many generations. So I went to the wilderness up north for some wild specimens. Spruce, hemlock, yew, madrone, manzanita, myrtle, ferns—oh, plenty of specimens. You think?"

"At least I hope, Doctor; it was splendid of you to take so much trouble."

"I enjoyed it. Saw a moose. Ready?"

• • •

Two hours later, all of Cutter's northern delicacies had been tossed into the refuse bin, as Chris had expected. He sat on the bench, in the incubation chamber, perspiring from both heat and fear. The rarest zoological specimen on earth lay in its hollowed pedestal, eyes half-shut but watching Chris. He should have been incredulous but wasn't when he saw actual tears in those eyes so like a spaniel's. Nor was he surprised, or shamed, to find some blurring his own vision.

Jon Cutter approached. Chris wiped a sleeve across his face, to remove the perspiration, and joined the doctor outside.

"Malone is on his way, with books," Cutter said. "We must proceed with system. I have called Madras and Cape Town and Malaya and Sao Paulo—jungle country. Men are moving; you will continue with the calling. Malone and I will check off all North American plants, starting with Honduras and working north. Request flowers, if any are blooming.

Maybe she likes orchids or seaweed."

"We have not tried vegetables. Cabbage, turnips and carrots are on their way. Action, my boy, and omit nothing, however ridiculous. And cheer up; she can last several days yet."

"Thank you, Doctor; action is the word."

A stream of carts bore away tons of earth plants, smelled and rejected. Leaves and flowers and pods that Chris had never heard of, he accepted and then threw away. Plants with strange native names as well as the Latin nomenclature of the texts. He called out both names and Malone made proper notations. Grasses, succulents, gourds, cacti—they poured in from every transportation facility on the planet. All through that day, through the night, and until a gray dawn rose on gray, exhausted faces.

The caterpillar was weakening. With motions ever slower it continued to contact and refuse offering after offering. Chris reached without looking into the latest box and pulled out a small bundle of leafless stalks. Without looking, he reached them to the pedestal. They were snatched from his hand!

The sudden crunching was music in his ears. He tore away the label and set up a joyous shout. "Doctor Cutter! Malone! It's sugar cane! From New Orleans."

Not only the news but a televised vision of the caterpillar enjoying its first meal was flashed about the country. Congratulations poured in. All orders were cancelled except a standing one to Louisiana.

Chris stood and laughed shakily. He stroked a silken texture that trembled under his fingers. "See you later, baby," he said. "I need a drink and some sleep."

He extended his hand and felt a finger being gently nibbled.

CHRIS LANE was both lonely and ambitious. Not ambitious for personal wealth or for leisure or for the gratification of his vanity. No, it was the society of certain men he craved, the great scientific discoverers

of his day. Just to feel himself on terms of equality with Bailey, or Wren, or even Cartwright. Only to be among such men and listen to their words.

And so Chris studied incessantly, and was happy with his work and his vision. He lived alone so that no hour should be lost in social triviality. A century of solitary application was no large price if its reward should be the friendship of Wren, or possibly Bailey. Such had been his campaign for living.

But now had come a short-cut; fame might easily become a matter of months rather than decades. Pure luck had brought an unexampled opportunity: This remarkable caterpillar was his future.

He moved into the noisome universal zoo, bag and baggage, as the old saying went. He built a room around, enclosing the airlock so that no intruder could get to the incubation chamber without crossing his body, alive or dead. He kept climatic conditions in his own room similar to those in the chamber and, within the chamber itself, he installed his leisure chair and lamp, and stands for books. Young Carran Millert took over his outside duties. Chris Lane thenceforth had but one duty; to it he devoted twenty-four hours each day, sleeping only when his protege slept.

It was the nights that he came to love most. With all humans gone, other than an occasional patrol-guard; with all lights softened except the golden cone about his chair; with all sounds deadened, he could concentrate upon his sole surviving interest. He rested in his chair of a thousand adjustments, book open before his eyes, pipe generally in his mouth, recording stand at his right and a box of fresh sugar cane at his left.

His unscientific conviction that this larva was a female grew steadily stronger. A name came to his mind. Only one name, for he had given the matter no conscious thought. It merely seemed to him that his strange companion was a being called Myrna, and thenceforth she was Myrna to him and

he so addressed her. When there were no witnesses, of course.

MYRNA now occupied an adjustable table of ribbed plastoid fused to a mat of softest latex. Instead of the jacaranda, which had withered, a pepper tree thickly shaded half the table. Myrna lay in the shade, her glistening round head as close to Chris as conditions permitted, and periodically accepted a stalk of cane. From the gloom out-



side their intimate apartments came an unceasing murmur. Many of the inhabitants of the big room were nocturnal in their habits and, apparently, mournful in their feelings. They yearned aloud for strange environments on distant planets; it was the plaintive song of the captive, so familiar that Chris seldom heard it.

Like all lonely men he frequently talked aloud. He would vocally approve certain passages in his current book, or perhaps give the absent author thereof a spirited argument over statements he disbelieved. Or, at times, he would read aloud when the pages before him carried some special appeal. The not unusual habit led to a remarkable discovery.

Myrna attended every whisper he made; this became obvious almost at once. When he read in silence the sound of ivory jaws crunching cane was steady as the rush of surf across a beach. But if he uttered so much as a syllable the crushing sound ceased instantly and the gentle spaniel's eyes turned to his face. She was listening. After a few tests, Chris had no doubt of it; she not only heard, but was interested.

He experimented widely. Putting aside his weighty texts, with their uncommon vocabularies, he read aloud from daily journals and from fiction writings, not only in the modern style but from the distant past. It was the latter, plainly, that Myrna appreciated most. As a playful puppy might, she used her meager physical endowments to convince him, through wrigglings and a variety of head movements.

As he realized that she had a choice, Chris was appalled at the implication involved. It was not his soothing voice that she enjoyed—certainly not that alone. She differentiated. She had an intellectual capacity for understanding. In other words—by the Lord of Creation!—she knew what he was reading.

He selected from a heap of ancient literature a tome entitled *To Have and To Hold*, by one Mary Johnston, and read slowly, his eye more often on Myrna than on the book. She was interested at once; she was even somewhat excited, if he was any judge of emotional exaltation. She crept along the table to its edge and extended half a foot of her length over it until her head brushed his sleeve. He imagined he saw apology and pleading in her eyes and could not manage to laugh, even inwardly, at the imagining. He stopped reading and waited. After a tense moment she placed her forward feet on his sleeve, watching him intently all the while, and moved forward until she lay along his forearm, her head on his wrist and her gaze fixed upon the book.

Chris resumed his reading, in a voice become rather muted, and saw from the slow swaying of her head that she was following the print as he translated it into sound. He did not believe this, but could not doubt that he saw it.

He rearranged their furniture. Myrna's table was provided with a slanting shelf five feet long. When she stretched upon it her head was close to his, beneath the lamp. She could move on the shelf until the distance suited her eyes. And Chris read aloud, through the long nights, from romances

out of a past age. Myrna was insatiable—so much so that Chris noted one day that her rate of growth, which had been extraordinary, was in a decline. Thereafter he insisted upon a meal, of sugar cane, after each chapter. He closed the book to enforce his decree, and Myrna dutifully ate. She was over two feet long and as large about as his arm.



**“HOW IS the lady getting along?”** Jon Cutter asked, towards the end of July. With a grin, of course. “Just fine.”

“I was admiring her graceful figure the other day. Rather like a stove-pipe, wouldn't you say?”

“Quite similar,” Chris agreed, flushing slightly.

“But, no doubt, that is not important; it's her spiritual qualities that attract you, eh?”

“Yes,” said Chris, turning away.

“I take it you are keeping full notes on the case?” Cutter said to the retreating back, and Chris paused.

“Naturally.”

“Keep your temper, my boy. The eyes of the scientific world are upon you, in a manner of speaking. You have a responsibility.”

“I know; I'm doing my best.” Chris smiled then. “Sorry to have seemed irritable, Doctor. I can't be scientific in this matter without appearing absurd. And neither can I explain that silly remark, nor can I show you my notes, as yet. I have your confidence, sir?”

“So long as the patient thrives, yes.”

“What will she become, Doctor?”

“Who can say?” Cutter gesticulated, not ungracefully. “I have a ten-foot mounting board ready.”

“You'd kill her?”

“What else? Can we let her destroy herself, beating at her cage? And how long does a butterfly live, in any case? Be realistic, my boy.”

“Yes,” Chris muttered. “Yes, that's right.”

He returned to Myrna, much depressed. As a moth or butterfly she would mate and die; without a mate, she would lay her infertile eggs—and die. Perhaps not in hours, or in a few days, but very swiftly. Every known fact indicated that. And yet—

How about instinct? Chris could not tell Doctor Cutter that Myrna read and enjoyed books. He might as well resign his position and future as to blot out anything so queer. Myrna, the huge worm, loved him, the bringer of food and knowledge, with a deeper love than any dog could know, because her intelligence was higher than that of any dog. Instinct?

Why, if her existence was to be so brief, would instinct either prompt or permit her to waste time learning matters which could not possibly effect that short tenure of life? Would instinct, or Nature, allow her to forget her food while her mind lived vicarious emotional experiences of a wholly alien animal form?

In short, why in the devil should Myrna, the worm, care in the slightest what became of a *human* heroine in an imaginary romance? It was ridiculous, but Myrna did care. Intensely. Well?

The conclusion was inescapable; but it was also unscientific. And it was personally disturbing—deeply so. No human worthy of the title could receive such devotion without returning it, in part. Or in its entirety, in his case. Life without Myrna would be a crippled thing to Chris Lane, the lonely ex-scientist. When they came with the chloroform for Myrna, they had better bring also gyves for his wrists and ankles. Strong ones.



BY THE end of August, Myrna was five feet long and a foot in diameter. Her reading

shelf had been braced to carry the weight. The habits of this weird pair of lovers had not changed, nor had Myrna's intellectual standards. Nothing Chris read or stated failed to draw her careful attention, but her preference for the romances of another day was so marked, her enjoyment of them so patently acute, that they became in time their sole entertainment, or occupation. Nor did she care for variety; over and over they would relive together the fancied histories of certain favorites, such as the deathless devotion of Captain Ralph Percy and his Jocelyn.

Chris experienced his metamorphosis first. Though he religiously kept account of all developments he became—and was well aware of it—daily less the scientist and more the decadent swashbuckler of an inferior era. He longed for the feel of Percy's sword in his own fist, and for enemies that he might smite with it; he yearned for physical danger, which existed today in no known spot. Weapons of the thirtieth century were so devastating that there could be no excuse for any human encountering an actual danger. And naturally no man ever thought of fighting his own species. Yet Chris Lane felt an atavistic, a really deplorable, desire to do just that. He loved his fellow creatures, as was only proper, but nevertheless he wanted to fight. To protect Myrna, of course.

From what? He snorted inwardly. From some hungry vulture? He was able to rationalize his mental retrogression. He did so, and still it grew within him. He wanted to encounter impossible antagonists. To struggle and fight and suffer—to love. What madness was this? He demanded in honest perplexity. Whence came it?

Myrna grew throughout September. She was six feet long and of an impressive girth. She devoured a large bale of cane every day, tirelessly chomping with mandibles which could have crushed a coconut. She ate even as he read her favorite books,

and woke during the day to eat again. Except when Chris spoke, her attention wandered. She became distract, heedless of her surroundings. And at last a drowsiness overtook her, so persistent that the reading stopped perforce. She could not stay awake long enough to hear a paragraph; when she moved, which was seldom, she moved sluggishly and as if partially blind.

Chris was dismayed at these symptoms, but not surprised. He rearranged their furniture, taking out all his own paraphernalia and moving hers to a side of the chamber. He set up a strong steel post from which guy wires reached in all directions, like the web of some metal spider.



Rain drummed heavily on the lofty roof when Chris woke, the morning of the 4th October. Myrna lay upon the floor, her head against the steel post. Chris spoke to her. She lifted tired lids and looked long into his eyes. He nodded. It was the time; he needed no words to tell him that.

Proceeding almost without volition, he did a strange thing. It was an action unprecedented; an action which, for a scientist, bordered on the criminal. In taking it he forfeited his position, his entire future. By this deed he discarded the friends who actually were, or had been when he woke, dear to him. It was the quixotic action of a Ralph Percy—of that quaint variety of human once called a gentleman.

Chris Lane ordered up a screen impervious to light and caused it to be draped over the incubation chamber. He raised a similar screen between his sleeping compartment and its connecting airlock. And he placed himself before it, ready to interfere forcibly with whoever sought to lift either screen.

FROM A distance Jon Cutter took note of these proceedings. He started towards Chris, then turned back to his cubicle, there to ponder

at length. To devise an approach to the unheard-of. The doctor did not consider himself a sensitive man; he had put his instincts in their proper place a century and more ago. But now they spoke to him peremptorily, telling of unscientific matters. Whispering of elementals. He could see his good friend Chris Lane seated motionless over there but he sensed the presence of another. There was danger. Danger? Yes, it vibrated through and about him, promising violence. The doctor fought this invader.

It was not yet serious; he could summon the Academy, bring in experts from another science who could and would deal with the matter. It was his duty to do so. But the man over there was his friend, and till now his best assistant. Much too fine a mechanism to be obliterated while there was hope, however tenuous. Could he possibly deal with the crisis himself? He would try.

He carried a chair with him and sat on it a few feet from Chris Lane. He lit his pipe and puffed slowly, as if with customary pleasure in the mild vice.

He said, as he had said some months earlier, "The eyes of the scientific world are upon you."

"Yes," Chris agreed readily, without emotion.

"To my mind," Cutter mused, looking into his fuming pipe, "there can be no destiny higher than ours. No greater honor than lies in the faithful carrying out of our oath; no greater pleasure than the consciousness of a duty to the entire universe, meticulously performed."

"Yes," Chris said again.

"There is no fact too insignificant to be of importance to us. We face all facts, and seek to understand them in their entirety. The link between cause and its ultimate effect comprises an infinity of related atoms each carrying a minute obligation to every other atom; each effect being in itself a new cause. What you are now thinking will have

an ultimate effect upon the orbit of Saturn."

"Correct," Chris said tonelessly.

"Well?"

"Myrna is changing her personality; she wants to be alone."

Jon Cutter stared. He tried to speak but failed. Minutes passed before he said: "I see the effect, Chris. Tell me the causes."

Chris talked until midday. He dwelt at length upon the causes, both real and fancied, with a wealth of detail entirely unnecessary to his distinguished audience. But not once did Jon Cutter interrupt. Nor did he once indicate his reaction to the incredible tale. He listened. When, finally, Chris stopped his unscientific babble, Cutter spoke his mind. "I have given you three hours. Quite enough time for any lady to change her personality. In doing so I have broken my oath and incurred penalties that cannot be avoided. There is no way to explain to the Board, and I will not attempt it."

"You are a courageous man, Doctor."

"What has gone on behind that screen is probably of little importance; it is not for us to decide. My justification, to myself only, you understand, is that the possible salvation of Chris Lane outweighs the loss we have brought by failing to record a unique occurrence. I admit the reasoning is false. The occurrence was unique. You are not."

"True."

"Chris! Man, don't you realize I should have you obliterated for this?"

"Of course, Doctor."

"And yet—yet— Well, I apologize. You *are* unique. In five centuries of history there is no parallel to such behavior. To give up your life, not for a friend but only that a—a worm—can have privacy. Greater love hath no man, indeed. How can I consider you anything but insane?"

"I don't imagine you can, Doctor."

CUTTER gnawed at the stem of his pipe. "I might have you incarc-

ated and studied," he muttered. "I believe I will. A plain case of possession. A throw-back of thirty centuries; you would have killed me if I had forced that screen?"

"I doubt it, Doctor. But I would have stopped you."

"H'mmm. Answer me this, Chris." Rapidly he asked a dozen questions wholly beyond the understanding of any person not versed in their own line of knowledge. Chris replied readily.

"Not insanity," Cutter decided. "There is another possibility. You have been exposed to this creature—of which we know nothing, remember—for a long time. Could she or it have exposed you to hypnotism of some sort? Could it be that her will is stronger than yours, so that you cannot be held personally responsible?"

"I'll wait before answering that one."

"I see. I see. But in case she should—no, I retract that. Chris, can you, will you, carry out your duties until the final emergence of this creature?"

"I can and will. Thank you, Doctor."

"I'll inform the Board that there will be only one official report, issued when all facts are known. We will try to deal with discrepancies at that time. And now, might we have a look?"

"I think so." Chris lifted a corner of the screen, then swept it aside. A large pouch of material like papyrus hung from the steel post, anchored to the guy wires, and to the ceiling and floor, by translucent cordage. It was in no way different, except in size, from any lepidopterous cocoon. Within it was life, changed and in the process of change.

"She has indeed changed her personality," Cutter said. "Now for a winter of work, Chris; she won't need you till spring."

But Chris needed her. Though he did his work, the doing of it was a constant strain. He longed for his ro-

mances but could not enjoy them alone. He slept fitfully, alert always for the call that never came. Did she sleep? Dream? Of him? At this instant she was changing, being transformed. To what? Could they again find food, for the new Myrna? Or would she step forth, flutter her wings, and die? Well, that was not the largest of his worries. So could he die, whenever he pleased.



As the winter crawled on Chris became increasingly aware that he had forfeited his future as a scientist. He no longer wanted it. Today, the society of Bailey, or Wren, would bore him; his was a discovery greater than theirs. Instead of feeling impatient when the need for food and sleep forced him to put aside his books, he felt a longing to be done with the day and its tiresome tabulation of facts. The constant stream of new animals, however bizarre, roused little interest in him. His inner guiding light, his soul, whatever it was, had retired with Myrna behind a papyrus envelope. And yet even there she was as disembodied, as formless as was the soul. He was bewitched and unfit to live by any modern standard. Shame drove him into social retirement. He no longer slept in his improvised office.

ONE DAY in January, Doctor Cutter introduced a dark young man with flashing eyes which seemed to embrace simultaneously both Chris and his entire background. A young genius, obviously.

"This is Karl Taggart, of Greater Northwestern," Cutter said curtly. "He is here to learn everything you know; see to it, Chris."

So now his shame was complete, but Chris found that he didn't care. Let

Taggart have his place; he no longer wanted it. Was no longer fit for it. He commenced the further education of Karl Taggart almost with cheerfulness.

No cheer remained when he discovered, after several days, that he had misread Taggart. The newcomer was not interested in comparative zoology; he was interested only in Chris Lane. He was, in fact, one of the bright young men from the Board's staff of psychiatrists.

Chris began an uphill fight. He must see Myrna before he died. He plunged into his work with enthusiasm which, if largely synthetic, yet brought results. Though loathing himself for it, he freely discussed with Taggart the great worm he had hatched and bred, and speculated untruthfully as to its probable emergence as the mightiest butterfly known to science. He exhibited, without a visible shudder, the mounting board Cutter had ready.

"You can see," he said to Taggart with disarming frankness, "why the prospect would be unsettling. My anxiety had brought on definite delusions. Might have become an obsession if I hadn't caught it in time. Well, it will soon be over."

Chris bluffed his way through February and early March. Cutter began to lose his dour expression, and Taggart took frequent short holidays. At least, he absented himself from the Pit, as he called the place. It was unlikely that Chris had fooled him except superficially, but no report had gone in to the Board.

The morning of 3rd April, 1920, Chris snapped into wakefulness. It was still dark, and his sleep had been profound. Also it had been dreamless but now, awake, he felt himself in a dream. There was an urgency in the very atmosphere. Something had happened, or was about to happen, to Myrna. No other possibility occurred to him, because for him there

was no other reality; the obsession was complete.

He was still dressing when he reached the tube. He passed the guards without speaking, his identification shield held out as if in a salute, and absently meshed his thumb print with the proper locks. Before the incubation chamber he hesitated, for several seconds. Then he closed a switch.

The cocoon was torn from top to bottom. Its ragged edges were folded back to show a delicate bluish lining, part of which had been ripped away. This much he saw while his head was turning.

She lay upon the long-discarded feeding table, loosely covered by the missing section of blue lining. It was insufficient covering to conceal the loveliest woman Earth had yet seen. Only a smile was needed for perfection, and sight of the man produced it.

"Hel-lo, Chris," she said. These were her first words and they came with difficulty, as if foreignlly accented. As if she had learned pronunciation through lip-reading.

"Who are you?" he asked, even more stiffly.

"Why, I am Myrna," she said, surprised. "I am the queen."

"The queen," he breathed, taking a forward step. An illusion? He reached a tentative hand.

She took it and carried it to her face. She nibbled lightly on one of his knuckles, and her laugh was an exhilarating burble of pure joy. "Remember?" she said.

"Yes."

"Read to me, Chris. Of Ralph and Jocelyn."

He was not himself. He found the book and sat beside her, on the floor; he fumbled blindly among the pages. Myrna took the book from him and found the desired passage. She stroked his ear with velvety finger tips while he tried to focus his gaze on the turbulent lines of print.

"They loved each other much," Myrna said. "But our love is still

much greater. It is not, Chris?"

"Much, much greater," he said as the book slipped from his powerless fingers.



THE DECISION of the Board, as voiced by its austere President, caused pain only to Chris Lane. It was but a momentary twinge, however. The Board had been more than lenient with Chris; it had been generous.

The audience listened, those eminent doctors and scientists, like a group of children receiving an unexpected holiday. Jon Cutter, beaming, reached across Myrna to shake hands vigorously with Chris. Carlson patted his shoulder. Karl Taggart smiled as his dark eyes flashed with some strong emotion. Myrna merely looked at Chris, and that was more than all the rest.

The Board, dealing first with the case of Myrna, had absolved Chris Lane of charges not made but implied. His aberrant behavior, in view of the outcome, was recognized as prescience; the future of the queen (the President smiled) would hereafter be guided jointly by Lane and Taggart. But—

But it was to be understood that Myrna differed anatomically in some respects from the mammalian human race. Hence it was decreed that, pending a final report by the Committee on Eugenics, there should be no marriage or mating for Myrna with any human from Earth.

The speaker then took up a matter of greater import. Doctor Carlson had been unsuccessful with his experiments, though each of his failures emphasized the great potential value of the strange cellulose compound. Earth must have that formula. So it was the unanimous opinion of the Board that an expedition should be launched

forthwith, to locate Myrna's people and discover from them their way of turning wood fiber into a diamond-hard substitute for metal.

Doctor Ron Carlson was designated head of the expedition. With him would go Myrna, as intermediary, with Lane and Taggart as her guardians. Taggart was to report direct to the Board and would be second in command. Lane and Carlson would select such assistants and associates as each deemed necessary. Preparations to begin at once.

•

They were home again—at the only home Queen Myrna knew. Though she kept her spine erect in her Earth clothes, both Chris and Taggart could see that she was much perturbed. She spoke when Carlson had left them. "But, Chris," she said, "I can't interpret anything. All I know is what you have taught me."

"Only my language, Myrna?"

"What chance have I had to learn any other?"

"We have considered that. How do you know you're a queen?"

"No reason; I know it."

"It is what we call instinct, Myrna. Only in your case it may be more than that. Taggart thinks this very possible, and he wants to find out now. Do you mind?"

"What will he do?"

"Nothing to hurt you. He has a machine for inducing hypnosis. That means that your thinking mind will sleep, and your inner mind will give up all its secrets."

She laughed her delicious laugh. "And will you tell me about my secrets?"

"I'll tell you," he promised gravely.

•

THE LITTLE flashing discs slowed as Myrna relaxed. The tension of a fear she had not admitted disappeared; her eyes opened on a scene not visible to the others. She smiled,

but now the smile became haughty, even a trifle disdainful.

Taggart nodded to Chris. "What do you see, Myrna?"

Her reply was a soft sliding of vowels, rather in the Spanish manner, but it was not Spanish. Nor any other language ever heard on Earth.

"This is Chris, Myrna," he said gently; "please use my language. What is it you see?"

She looked worried. A short struggle ensued within her mind, and suddenly her smile regained its customary sweetness. "The court," she said.

"Who is present?"

"My husbands."

"How many?"

"Why, ten, of course."

Chris looked swiftly at Taggart and thought resentfully that he had caught the ghost of a vanishing smile. "Describe everything you see," he ordered brusquely. She began at once, in that strange but attractive tongue of another world. Chris opened his mouth to intervene but Taggart shook a warning hand. They listened intently for several minutes and were able to catch the rhythm if not the meaning. Taggart slowly nodded his head, looking pleased.

"And now," Chris said when at last she finished, "tell it again the same way, in my language. This is Chris again, Myrna."

Again the short struggle and the peaceful relaxation when it was won. "Yes," she said. "I am in a couch, something like—like a bowl. There is much food on all sides. I am larger." She spread her arms as if about to embrace a hippo; Taggart's smile was no ghost, this time.

"The room is large, but less large than here. It is very light, but there are no lights. My husbands just—just stand around. They are much bigger than you, Chris. Only they are nothing to the queen; she despises them. She—she despises herself. Oh, Chris! She is not—not nice. Not good. Or is she sick? Oh, no, no, no!"

This time Chris stopped Taggart.

He took Myrna's hand, and it slowly unclenched. "Chris is here, darling. Look away now from the queen and her husbands. They are nothing to you. What is outside the room you see?"

"The queen has never been outside."

"There are people out there?" he asked.

"My children, naturally."

"Many children."

"Oh, yes. Of course."

"But you have never seen them?"

"Only a few. But they tell me."

"And yet you are the queen, Myrna. And you are outside."

"No, I couldn't be—" Her acute distress ended the experiment promptly. The men let their eyes meet as their subject regained her known personality.

"How do you feel, darling?"

"Tired, Chris. What does that mean—" darling?"

"It means I love you very much. Sleep now, and I will come back soon."

THEY LEFT her, apparently already asleep, and strolled slowly between the cages, heedless to the outlandish screams and grunts and whistles of unearthly captives.

"What do you make of this queen?" Chris asked.

"An imprisoned egg-factory."

"Nice prospect, what?"

"They say love conquers all." Then Taggart added hastily, "Anyway, the language will be easy; we'll know all her words long before we get a chance to use them."

"Yes," Chris said absently. They strolled. Suddenly Chris laughed. "By the Great Infinity," he said, "this is really unique. Ten husbands, each of them much larger than I. Can optimism go farther?"

"Not Myrna's husbands."

"Can we be sure, Taggart? Myrna is the queen; we haven't shaken her on that. Is she an actuality? Is she real, as we see her? Or is she some

projected alter ego of that repulsive animal in her bowl-like couch? Maybe Myrna is the queen as she sees herself, or as she would like to be."

Taggart looked at him, wistfully. "In your position, Lane, I would fight like a tiger against such a thought." He lowered his voice discreetly. "I would even fight the Board, I believe."

Chris nodded. "But the Board is right," he said; "they are only protecting Myrna. It has been some millions of years since our ancestors produced an egg. I doubt if I have the knack, even by instinct."

Taggart grinned. "Even millions of years ago," he said drily, "it is not likely that any male ancestor had the knack."

Their space ship was ready at last, and the time to blast free from Earth calculated to the second. The best brains available had collected and correlated all facts which might be of use to the expedition—and meager enough they were.



As for the planet they sought, it obviously was not in Earth's solar system, though in a few respects it must resemble Venus. Its atmosphere would be uncomfortable, but endurable to Earthmen; its gravity would doubtless be somewhat less than that of Earth; it would be warmer and more humid, with considerable rainfall, a profusion of vegetative growth, and a scarcity of useful metals. This latter point Carlson deduced from Queen Myrna's travelling cage. Only a lack of metals would have driven those unknown scientists to such an intensive study of cellulose.

Myrna herself was proof that they

would find human beings of a high order of physical development; the pseudo-metal was ample proof of their intelligence. Myrna's extreme gentleness would seem to indicate a peaceful people, though plainly she could not be considered an average specimen. By her own account she was the best—the queen. Physically that seemed only the simple truth. Nothing can be added to perfection. If she appeared not highly intelligent, that was likely due to her haphazard education. She had been taught only romance and adventure. This seemed a pity to the Board, which, however, realized that Chris could not have known he was teaching anything. It did not seem a pity to Chris.

WITH A flash and a roar the *Myrna* darted from Earth. Another roar and then a third, hurled the ship beyond matter, out of the atmospheric film into a black realm where celestial torches flared and illuminated nothing. Beyond gravity, flashing into the void by overdrive until reaching the speed of light, when their residual energy drive took hold to advance their acceleration gravity by gravity as light years became to them months, then days, then fractions of days. Sol shrank to an insignificant star behind them, and once familiar constellations twisted unrecognizably.

They sought out, in space fields never yet visited by man, suns approximating Sol in size and color of flame. Lesser stars. And having found one such they skirted its planets and the moons of the planets, but rare indeed were those even approximating the necessary specifications.

Clouds they sought beneath which vegetation might flourish, but they found instead spheres in every stage of disintegration; dead worlds that were outright clinkers of fused rock and metal, dying worlds with a suggestion of air and a sparse mockery of plant growth.

"The year's vegetative crop wouldn't make a hatful of the stuff I am after," Carlson growled in disgust when they had cruised slowly over one of the latter.

Each day Myrna sat in Taggart's innocuous machine and repeated her scant knowledge of the court and the queen and her ten husbands, in the world they hunted. She described these beings, and others recognizable as servants, and the furnishings, in detail. The soft quilts on which she (or the queen) reclined, and the color and texture of everything in that room. But never again did she enter the mind of the queen, and of her husband's thoughts she knew nothing. Only their appearance, their words and expressions.

"Sounds like a hard lot, to me." Taggart whispered once to Chris.

Myrna spoke at these times in her native tongue, and her speaking was recorded and replayed after she had returned in spirit. Then she, with Chris and Taggart, learned the language she could not normally recall. As Taggart had predicted, it was not difficult.

Month after month, they approached the smaller suns and visited each of their planets. One by one, they discarded the useless marbles and moved on—moved into space never yet traversed by Earthmen, where their emotions neatly matched those said to have disturbed one Columbus and his crew on an equally uncertain voyage. There were murmurs, and discouragement, and at last concealed fear was made manifest in angry protest by some of the non-scientific crew.

"This could go on for a lifetime," Captain Hardestal said, mildly.

"Not without a supply base."

"No," the captain assented; "we are near the half-way limit now."

"Another month, you think?" asked Doctor Carlson.

"Oh, yes. With light rationing."

THEY FOUND it ten days later, circling a sun of the third class. Its four planets showed, even from a distance, a ragged outline. Water-vapor, obviously. They hovered closely over the largest of the four, since its 5000 mile diameter should logically provide the desired gravity.

"Well, split my personality!" Taggart ejaculated, looking into the smaller and more powerful telescreen.

"What you find?"

"Tree tops, that's all. Sticking out of the clouds. How high are those clouds, Captain?"

Hardestal made a swift calculation; his heavy eyebrows raising as he finished. "Low-lying storm clouds," he said; "about twelve hundred."

"And the trees, some of them, are easily three hundred more. Make our redwoods look like asparagus."

"That may make our landing something of a problem, too. I assume that you want to land, gentlemen?"

They did, and Hardestal began a search which resulted in finding, a quadrant away, an extensive hole in the clouds. Instead of trees they saw an expanse of well-weathered mountains covered with vegetation too small for trees. They saw also shining lines rounding the peaks and running arrow-like through the valleys.

"Could be roadways," Chris suggested.

"They must be; we will follow one."

And so they came to a city much like the medieval cities of ancient feudal Earth. A vast palace, a score of lesser yet still impressive buildings, and about all a great wall. Within the wall a broad belt of box-like erections sat in concentric circles, broken by wide paths extending radially from the palace grounds.

"Since we have with us a queen," Taggart murmured, "it seems only appropriate that we call at the palace."

Hardestal glanced at Carlson, who nodded. The captain set his sights on

a sort of plaza a few hundred yards from the largest structure in view, and expertly brought his ship to a halt in its center. They were in a saucer, cut off from the rest of the planet by that towering wall. There was no sign of life.

"Let's try the atmosphere," Chris said. "Maybe we can take it without helmets."

He stepped alone into the airlock. As the outer air gradually filled the lock he felt his pulse quicken to accommodate his faster breathing. The new air was humid, as they had expected, but less hot than they had feared. Chris smilingly beckoned and soon all had stepped lightly to the paved surface of the plaza.

Carlson went to his knees. "It is," he announced solemnly. "The same stuff; they pave their streets with it. Compadres, we have arrived. There, Queen Myrna, is your realm."



HE STOOD clinging to the damp hand of Chris, seeing nothing familiar. Broad steps led to a blank wall. What might be windows were unbroken strips running horizontally and bending with the walls, for nowhere was there a corner. The palace curved and bulged in graceful planes merging at improbable lines. It was in a way reminiscent of a conglomeration of soap-bubbles under light compression, yet these were bubbles harder than steel. For everything was of that dove-gray substance which had drawn Doctor Carlson and his men such an intolerable distance from their home laboratories.

"Well," said Captain Hardestal, "shall I blast a doorway through it?"

His pleasantry drew no response, because the doorway appeared; plates invisibly joined withdrew to leave a single elephantine opening. A figure

came from it, hesitated, then strode towards them. It was a bearded man, burly and wide-shouldered, approximately seven feet tall. He wore a multicolored head-covering which rose from a gaudy brim to a hemisphere topped with a scarlet ball. A similar ball, perhaps an inch in diameter, dangled from each pierced ear. His loose tunic was decorated with golden figures not readily discernible at the distance. He was truly resplendent, in an oriental manner. A massive saber hung from his waist, in a scabbard that flashed in the strong sunlight.

"One of the husbands," Taggart whispered; "get ready to take him, Chris."

"Don't think I can't," Chris whispered back. But to himself he added, "With an ion-gun, maybe."

"Hush," said Carlson. "Karl, you're the best at their language. Present our greetings and felicitations."

Taggart stood alone a few feet from the others, waiting the arrival of the giant. He began his short speech as the native came to a halt, his mighty chest almost in Taggart's face. His tunic and beard fluttered a very little in the gentle breeze. His large brown eyes fixed on Taggart's moving lips. Then he spoke in answer, for a full minute. Taggart bowed and turned to his compatriots, not all of whom had learned this tongue.

"Boiled down," he reported, "the gentleman says that this is Telanus. The planet, that is. He himself is a Telan, one of its princes, in fact. He asks first, do we come as friends or foes. I am about to assure him that we simply exude friendship—right?"

All nodded as a unit.

**T**AGGART spoke again. If his slim, dark figure seemed insignificant so close to the Telan, he seemed blissfully unaware of it. Nothing had occurred to shake his complacency as a higher example of the highest of civilizations.

While he was explaining their peace-

ful intentions, the brown eyes opposite and above him widened. The Telan spoke more rapidly, more loudly. He was staring over the black-topped head of Taggart at the only female in sight.

"Telana," he said forcefully. "Telana regina! She is from no distant planet. How?"

Taggart turned again. "Well," he said helplessly. "You heard him. How?"

"It is part of the story we have to relate to you, sir," Carlson said soothingly. "A long story. Telana, as you say. Yet she is a valued member of our party, and truly she has just come from a distant planet. We are here as friends; are we welcome?"

The Telan flashed at him a smile without warmth. "Welcome, of course," he said. He elevated a broad hand, tipped its fingers towards the doorway, and strode off.

After a hurried consultation Hardestal placed his chief officer in charge of the ship with instructions to prepare for anything whatsoever. He took with him Sloan, second officer, and walked behind Carlson and Taggart, Chris Lane and Myrna, in the wake of the giant. The others boarded their ship and prepared.

Five Earthmen and a lady from space entered the palace of the Telani. Its doors closed noiselessly behind them. They found themselves in a room, or enclosure, about forty feet in diameter—for it was quite round. A cylinder on end. They might have been standing in the breech of some incredible cannon. The floor, a mosaic of gray bricks and pink mortar, rose with them.

"An elevator," Chris said, his tone somewhat hushed. Carlson grunted meaninglessly.

The motion ceased, a strip of wall curled upon itself like a window-curtain, and they saw through the long slit a portion of the plaza and the all-encircling wall. Moving closer in a body, they looked down a hundred feet upon their ship. Their royal guide had vanished, as if by witchcraft.

"Look!" cried Captain Hardestal, and their eyes followed the pointing of his rigid forefinger.

The curve of their shaft merged a few yards beneath them with a hemispherical bulge considerably smaller radially. In its center had appeared a hole, then the end of a tube quite three feet across which glided snake-like from the hole. It tipped and, as Hardestal uttered his fervent protest and prayer, an unseen something left the tube, left but a heat-quiver as it passed. And below, their space ship and everyone within it passed from existence as but another quiver. It was gone; it was become nothing, not even a puff of smoke.

Five men drew their puny weapons and gathered in a huddle, facing outward with Myrna in the center. They sought to die fighting, if only there were something to fight.

"We come in friendship," Taggart said bitterly. "How do you suppose they would greet an enemy?"

"Take him apart one atom at a time, no doubt. Let's all blast this Telan at once, if he comes. A small revenge, but better than nothing."

Even that was not permitted them. The round ceiling sank upon them, with quiet but terrifying speed. Chris took Myrna in his arms. After an instant she clung to him, rubbing her cheek to his. "The first—kiss. Isn't that what it was, Chris?"

"Yes darling."

"And I love you very much too, Chris."

"Goodbye, Myrna."

The ceiling stopped just over their heads and belched a yellow gas. They sagged against one another; a second treatment sent them to the floor.

•

THEY AWOKE, almost at the same instant. Aside from a fuzziness of the tongue and a dull ache in their lungs, there were no after effects. Myrna was as before. The men had been stripped and reclothed; they now

wore a gray tunic like a cloth sack with short sleeves. Boots of some flexible plastic covered their feet and ankles. And that was all. Their weapons were gone.

Chris looked at himself and the others. He lifted both palms in a gesture of ultimate futility. "They have us," he said. "Nasty people, but most efficient."

"I, too, feel out of my class," Taggart said, smiling grimly.

"There is still hope," Carlson said. "Where?"

The doctor inclined his head. "Queen Myrna," he explained. "We are alive, for no other reason that I can imagine. In Myrna lies an unsolved mystery. So I would like to suggest, gentlemen, that we hereby appoint Chris Lane as our leader and spokesman for the duration of our stay on good old Telanus."

"I so move."

"Seconded."

"No opposition? Elected. What do we do first, chief?"

"Nothing," said Chris.

"Consider it done," said Taggart. "I'm going over to this alleged corner and have a seat." He braced his hands against the floor to keep from sliding out of the molded corner.

They were men of action, those overlords of Telanus. A door winked and the self-styled prince stood beside them. He stared penetratively at each of them, but longest of all at Myrna. It would appear that he could scarcely credit her existence. "The kaldore waits," he announced.

"That's a shame," Taggart commenced, but Chris silenced him with a brusque interruption.

"We are ready," Chris said.

The prince waved open another door and led the way through it. They were in a corridor of such length that its end seemed no larger than the palm of a hand. The corridor floor moved, raced away with its passengers almost half that distance, and stopped without a jar. The prince stepped through a doorway twice his height and ushered

his captives into a dome-shaped chamber. It was brightly illuminated by invisible sources.

Myrna tightened her grip on Chris' hand. It was the court chamber, exactly as she had so often described it. A couch, bowl-shaped, occupied the exact center. Around its rim depended baskets, filled with some cracker-like food. In it lolled a fat obscenity, one hand to its mouth and the other groping in a basket. They were in the presence of royalty—the queen.

Her eyes were closed, as if by blobs of fat. Every feature was obscured and overlaid by the bulging of unhealthy flesh. On Earth she would have weighed as much as 800 pounds. Worst of all, she was covered by the smallest veiling consonant with human ideas of elementary decency. To the captives she was a repulsive spectacle. Yet she was the queen.

HE WHO escorted the prisoners completed a group of ten. They might all have come, Chris thought, from the same setting of eggs. Haughtily they stood, in their something like Earthly oriental splendor, bending only their necks as they examined a long table on which were spread the clothes and weapons and personal belongings of the captives. The princes varied, to a casual look, only in the shapes of their beards. These had been trimmed according to each prince's individual taste, and some were fantastic. Their garments were a royal uniform, it seemed. They were armed only with the long sabers.

"The captured invaders are here, O Queen."

Her flabby cheeks trembled briefly and one eye came open. It closed again as she filled her mouth with food. "See that they are killed at once, Prince Mors," she mumbled.



The prince glanced at his nine brethren, a faint smile twitching his forked beard. He continued deferentially, "At once, O Queen. There is a female with them. Telana." He paused, then added more loudly, "Telana regina."

Both piggish little eyes popped open. The queen even raised her head several inches to glare at Myrna. "She must die!" the queen squealed. "Immediately, Prince!"

"Yes, O Queen. Immediately." He spoke humbly, but now his smile was unmistakable as he turned his back. He took up and examined one of the atom guns. "Would you care to test the strangers, Kalu?" he asked over his shoulder.

The giant with a spade beard advanced languidly. He combed his beard with thick fingers as his agate eyes passed judgment on the unhappy six. He pointed to the young lieutenant. "What do you know?"

Karl Taggart spoke up. "He does not yet speak your language, O Prince. I could interpret."

Kalu nodded his permission.

Taggart spoke earnestly to the lieutenant. "He wants you to tell him what you know, Sloan. Spread it on thick, man; make him think you're a genius."

Sloan tried hard to comply but he did not look like a genius nor was his record too impressive. Taggart inflated the account as much as he dared. Kalu looked at his confreres, his thick lips pursed in reflection. He decided. "This prisoner, then, is a fighter. There is no fighting of that sort on Telanus. He flies space ships; he will never fly another. That he is a mechanic is more interesting. But would one of my brothers care to have an enemy alien repair his ship?"

The query was obviously rhetorical, but Kalu waited several seconds. He gravely bent his head towards Prince Mors.

Mors raised the atom gun and blasted Lieutenant Sloan. Sickening fumes of cooked flesh choked the re-

maining Earthmen. One of those hidden doors winked and two men came with tools and a basket. They quickly cleared away the debris and departed as they had come.

**M**YRNA CLUNG to Chris, transmitting the uncontrollable shuddering of her body. A savage growl rumbled through the throat of Captain Hardestal. Both Carlson and Taggart looked pale, grim and defiant.

Kalu gently tugged at his beard. He looked next at the doctor. Carlson stared back, then stepped nearer the prince. He rested his hands on his hips and raised his chin. D'Artagnan could not have improved on the attitude.

"And what do you know?" Kalu inquired.

"More than anyone on this murderous planet," Carlson snarled. "I know metals—just about everything there is to know of metals—from every place Earthman have visited. We came here as friends, both to learn and teach. I have learned enough; tell the royal butcher to pull that trigger and get it over with."

Ten princes smiled ten smiles. Kalu did not turn to consult the others. "We welcome your teaching, O learned one," he said. "If you are indeed so wise, you shall have honor on Telanus. However, if the wisdom is but in your mouth, it would be best to admit it now."

"I stand by what I said."

Another came from a suddenly-appearing door. He was thin, and his shapeless smock bore modest decorations. He took Carlson by the arm and the two were soon gone behind the vanished opening. The queen uncovered an eye, shuddered for some obscure reason, filled her mouth, and dozed as she chewed. Kalu bent his gaze upon Hardestal. "Have you outstanding knowledge? I repeat, it is better to die swiftly than to claim it falsely."

"I know space ships and space travel," Hardestal said dully. He had

not recovered from the horror of Sloan's death. "I calculate. I understand a machine when it has been built, but I cannot build one. I am an executive. I lead and direct men, control them in all situations. I—" His voice died away, as if his lungs had been emptied, for the last time.

Kalu consulted his fellow princes, with his eyes. It was plain that all were mildly amused.

"We have shown how we regard space ships and their fliers," Kalu said. "Brothers, here is a leader and director. One who gives orders. Have we need of such on Telanus?"

He laughed aloud, and before the sound of it had ceased Captain Hardestal was a smoking ruin of lifeless flesh. The odorous litter was soon cleared away.

Myrna heard the gritting of teeth just over her head, and felt Chris' muscles tense. She gripped him tighter.

"And you?" Kalu inquired, of Karl Taggart.

Taggart sneered. "I study minds," he said. "Sick minds, like yours. I search for genius and combat evil, where it lies hidden in the personality. When I find a diseased and inferior example—like you, O Prince—I strive to cure it; I do not kill, as cowards and weaklings do."

Again Prince Kalu laughed aloud. But from the loose ranks of the assembled royalty advanced a prince with a sharply pointed beard under a waxed mustache. This individual, though tall as the others, was somewhat thinner in build. His movements were swift and graceful. Kalu's laugh subsided to a smile. "Yes, Rovan?" he said softly.

"I request ownership of this prisoner," said Rovan. "I have dreams at times, as I have related. I wish to consult with the stranger concerning them."

"Will you have him search for genius, or evil?"

"I wish him to find what is there, Kalu," Rovan said simply.

A quick survey disclosed no opposition. Rather the princes were again

amused. Probably, Chris thought, this proceeding was a treat for them—a new sort of circus. "He is yours, Rovan."

TAGGART shook hands with Chris and Myrna, then followed his guide. The remaining pair straightened. They stood hand-in-hand, facing the inquisitor Kalu and the executioner Mors. Over both these, as well as the other eight, had come a new tenseness. This was apparently felt even by the reclining queen; both her eyes showed, glittering pinpoints of fear and hatred.

"She must die!" the queen said.

"Of course, O Queen," said Kalu. "Yet consider. Her existence implies the highest treason. Would it not be well first to investigate? How is it possible that she lives? Her seed came from the royal vacuum. How was it taken? How was it borne away to an alien race? How could an ignorant people know how to rear so splendid— even so miserable a hag as this despicable interloper who seeks your throne? Shall we not discover these matters?"

"It does not matter; she must die! Immediately!" cried the queen in a small shriek of panic.

"Immediately," Kalu agreed. "But only by the ritual, as of course Your Majesty intends. She, however ugly, is of your seed, O Queen."

"I forgot; I still forget. Ritual? How long, Kalu?"

"With the rising of tomorrow's moons, O Queen."

"Then start. Start at once!"

"At once, O Queen."

Kalu turned, as the monstrosity packed in new food, and winked openly. From this Chris and Myrna knew that she was not to die. Not with the rising of tomorrow's moons, nor so long as these princes could hoodwink a half-witted ruler in name only. The queen could have no power outside this one room.

Kalu spoke sternly. "To the dungeons with the hideous pretender. Let us prepare the ritual. Immediately, brothers! In fact, at once!" He

winked again. The brothers loosed a growl and shuffled their feet. Two women in cowls which hid their faces appeared.

Myrna clung to Chris. He bent and kissed her. "Goodby, darling. For a time."

"Will they kill you, Chris?"

"No."

"Are you sure?"

"They need me, to learn of you; I will not die soon."

She walked slowly away between the cowled women. Chris Lane stood alone before the ten mighty princes of Telanus. He did not wait for Kalu to question him. "I have no knowledge of value to you," he said. "I am a zoologist on Earth. I know animal life, how to breed and feed and classify new species. It was I who reared the Princess Myrna. And that, Royal Sirs, is all I do know."

On the basis of his accomplishments he rated extinction, beyond a doubt. But because of his knowledge of Myrna he would be kept at least partially alive until they had that knowledge. So he did not so much as glance at Mors.

But he was surprised, to put it mildly, at the behavior of Rovan. The prince stepped hastily forward, his fingers shaking in his beard. Again, and more plainly, showed that look of amusement on the other faces. "Kalu," Rovan said. "Kalu, I must have this prisoner, also. You know, brothers—all know—how I have waited and hoped. Almighty Lorchal must have sent him!"

All heads bowed momentarily.

Kalu smiled. "I believe it unlikely, Rovan, that Almighty Lorchal would concern Himself with you and your caged monsters; this alien could be of value to you.... But he is yours." Kalu shook a huge finger in the air. "He is yours, provided you can persuade him to empty his mind concerning—" He broke his sentence, looking over at the somnolent queen.

Rovan came close and looked into Chris' eyes. "How are you called on—on Earth?"

"You have heard Kalu, Chris. I am a zoologist, on Telanus. The only zoologist. I need your companionship and help; will you speak of—" he hesitated—"of the princess?"

"I have nothing to conceal," Chris answered, and felt his hair stir in the breeze of Rovan's relieved sigh.

"Tell us."

**S**O CHRIS, who could think of nothing worth concealing, related the whole story—to a rapt audience. They were especially interested in the sugar cane.

"This plant grows in quantities?" asked Mors, the atom gun dangling forgotten from one finger.

"In certain places, yes."

"It grows wild, there?"

"No. It is cultivated."

"And eaten?"

"We use only the juice; it is converted into a granular substance we call sugar."

"Where," asked another prince, "was the queen-seed found?"

"I don't know," Chris replied. "The second man you killed could have told you."

"It matters little," Kalu said. "We must learn how it was stolen and how removed from Telanus. This prisoner cannot tell us. I believe his story. For the present, I approve Rovan's request." That being the obvious concensus of opinion, Kalu gestured Chris away and turned to the table.

"Let this trash be destroyed," he said, indicating the clothes and weapons. Mors tossed the gun he had been using onto the table. "Now, brothers," said Kalu, "let us prepare the ritual. Death to the false queen!"

The true queen forced open her pigish eyes. "At once!" she wheezed.



**P**RINCE ROVAN leaned his elbows on a parapet and looked down into a vast pit where

prowled a score of strange and fearsome beasts. "Do you have these on Earth?" he asked Chris, who was at his side.

"Not native to Earth. They are somewhat like the Venusian carnosaur, though larger. I marvel, Prince, at the stubby wings; for what possible purpose could nature have developed them?"

Rovan chuckled. "For the swiftest of flight. These are kept clipped. In the jungles the wings spread fifty feet. Trapping them is the finest sport on Telanus, Chris."

"And their food?"

"Only live food. The gray lemmis, chiefly. We have not yet seen the food pits. It will take days to inspect everything; I intend to put you in full charge, Chris."

"It is the work I love, Prince."

They were long silent as they watched the great beasts prowl beneath them. A mutual affection for animals, for even such frightful brutes as these, began to form a bond of sympathy between the prince and his new slave.

"There was a time," Rovan said idly, "when love and friendship and honor were not unknown on Telanus."

"But now those virtues are extinct, Prince?" Chris kept his tone casual.

"Not quite, Chris." The prince meditated; "the princess is beautiful."

"Very beautiful."

"But no more so, believe me, than was once the present queen."

"That—"

"Yes. That. She was entrancing."

Chris gathered his courage. "But she was evil and cruel," he hazarded boldly.

"Not at first, they say; you call the princess, Myrna?"

"Yes."

"Queen Myrna." The words were spoken carelessly enough, but behind them lurked a meaning Chris knew he was intended to grasp. He feared that he understood, but temporized. "You mean a warning, Prince?"

"The kaldore meets today. That is our name for a business gathering of



the princes. We will decide when and how to kill the queen. The Princess Myrna will take her place."

"And become another horrible mass of blubber?"

"In time. It does not happen overnight, but the fat is necessary for the production of many seeds. Soon the queen would be a starved and haggard thing."

Chris, without considering the risk, grasped the massive arm nearest him. "Prince," he said earnestly, "you would not tell me this if you approved. You wish to prevent it. Tell me how; tell me how to help."

"Let us walk, Chris. I will show you part of the city."

ALL ROADS and paths in the city proper were the tops of walls, and between the walls were gardens, or deep pools of water swarming with fish. Or, in Prince Rovan's domain, they were the infinitely varied living quarters for his animals. Beneath the wider roads the walls comprised houses for the citizenry who, apparently, could never leave that particular garden space upon which their doors opened. The prince and Chris Lane strolled above them, over the roofs of the city.

They mounted steps to a higher wall surrounding a garden that reached straight to the great wall of the city. Many artificial streams kept the dark soil always moist. Thousands of people, not noticeably different from Earthmen, worked among the grass-like plants.

"The royal nursery," Rovan murmured. "In fact, the only nursery; it is unlawful for a seed to mature anywhere but here."

"How can you enforce such a law, Prince?"

"Because it is impractical to raise this plant anywhere else. Would they raise a menos and see it starve? Beneath us now are the incubators. The menos—that is, the newly-born—are put here on the growing plants. They remain for three weeks. Then their education begins. Let us go down, Chris."

It was a narrow stairway that took them down to the garden level. They entered the wall through a doorless opening and halted before a sight which caused Chris to rub his eyes.

A hundredastic tubs stood in ten rows. In each grew a small clump of cane, and somewhere on each clump lay an elongated figure the sight of which brought to Chris a pang of memory. Brown eyes in small heads of green were directed as one to a screen showing in three dimensions one of the princes of Telanus. The televised prince was reading from a little book...

*"—vested under the authority of Almighty Lorchal to the Queen of Telanus, all-beautiful, all-wise. Without her guidance we are nothing, and less than nothing; our shallow minds and thoughts are not to be trusted. Our lives we pledge to the Queen, and our obedience to the Princes she selects to instruct us.*

*"We pledge ourselves to—"*

"Let us go," Rovan said abruptly, stepping back to the garden and beyond hearing of that monotonous drone. "It never ceases. They are pledged never to think for themselves and, to the death, they will keep the pledge. What the menos is taught before the great metamorphosis, he will remember while he is an adult. His mind is formed and it cannot change."

Rovan walked slowly, his face a gloomy mask. On every side people cultivated food for the menos. "These good citizens would tear you to pieces if they could read your thoughts of

the queen." He chuckled, then. "Let's climb out of this."

ON THE road above Rovan said, "You see what the Princess Myrna has escaped."

"Then," Chris said carefully, "neither can the princess forget what she was taught as a menos? She cannot change?"

"No."

"She wished to learn nothing but love." He paused. "It is enough for anyone to know."

"That is so," Prince Rovan agreed, gravely. Chris caught a glance from the corners of Rovan's eyes. The prince looked instantly away, grasping his pointed beard. A shade of doubt darkened the Earthman's thoughts; wasn't this exalted being perhaps a trifle too confiding to a stranger and a slave?

They returned to the noisome bear-pits belonging to Rovan. Again they looked down on the restless carno-saurs.

"Is it permitted to ask, Prince, where you yourself were educated as a menos?"

Rovan seemed not to have heard. Instead of replying he pointed to the beasts below. "Are you afraid of them?"

"How long would a zoologist last, with fear?"

"True. Then follow me." He pressed a hidden switch and a ladder stood out from the wall. They descended. Chris, hoping fervently that the carno-saurs had been fed recently, stood beside Rovan in the center of a living nightmare. Green eyes leered balefully down upon him. A jowl twitched back from fangs long as his hand. Prince Rovan drew his saber and spoke a stern word. He stared down one pair after another of the green eyes. He advanced and slowly retreated.

They reached the feeding trough near the center—a shallow tank where-

in hundreds of living lemnis were poured twice a day. Rovan jumped lightly into the tank, followed by Chris. A ring of frightful heads looked over the rim at them. Rovan trod upon a circular plate and a four-sided screen sprang into the air, boxing them in as it bruised a few overhanging jaws. Rovan laughed. "I think none of my brave brothers would have faced twenty of my little pets," he said.

"Nor would I, alone," Chris admitted.

"But they will face them singly. Ah, yes, you will see tomorrow."

"Yes?" Chris said, blankly.

"Tomorrow we celebrate." He trod on another plate and the floor of the cage sank suddenly, carrying them down until flush with the floor of a large corridor or tunnel, running both ways. And so did a smoothly-running walk, to the right and the left.

"There," said Rovan, pointing, "the palace." He stepped on the walk travelling away from the palace. They rode for some time, not speaking. Above a luminous ribbon created blue twilight. They moved to solid floor at the end of the tunnel, where Rovan used a thin pencil of light to open sliding doors.

They entered an underground world with a translucent sky freckled by sunlight sifting through tremendous trees dimly seen. This large and almost transparent sheet was not a single pane, for solid rods ran longitudinally through it at spaced intervals.

Chris was fascinated, both by the structure itself and by the dim shadows which moved across the sky in aimless wanderings, like small clouds drifting aimlessly before a zephyr. For the shadows had feet with claws. Unfamiliar animals walked above him in anonymity except for their flattened soles.

They scattered suddenly, like pigeons before the onslaught of a hawk, and new feet appeared, moving

with slow majesty, larger than the print of the mammoth, with the claws of a grizzly magnified unbelievably. Chris gasped.

Rovan looked up. "A scarron," he said carelessly. "Any movement on this side attracts them."

"Are those things caged, Prince?"

"I haven't the resources to cage even one of them. I feed them here, occasionally. The roof folds, when activated." Rovan laughed. "From a distance, you understand."

"I'd give a finger to see one clearly!"

"A finger wouldn't satisfy him, he would want all of you."

**R**OVARN BECAME moody again as Chris looked about him on his own level. The left half of this large place contained nothing at all, and might easily have served as a hangar for the biggest of space liners. The right half appeared to be a factory, swarming with men busy at many machines. No sound reached the two visitors and Chris saw, though not easily, that a partition, practically invisible, ran the length of the place. He saw a cylindrical halved box several hundred feet long, its upper part swung back. A gigantic log of wood moved on small tractored vehicles up to the box. Chris suddenly understood what he was seeing.

"How big will that log be when they are finished with it, Prince?"

Rovan pointed to his wrist, and Chris whistled. As his thoughts turned inevitably to Doctor Carlson he noticed the doctor, on his knees, studying some feature of the box. And next he saw Karl Taggart, who watched with tepid interest from a distance. He waved when he chanced Taggart's eye.

Rovan noticed and beckoned to a nearby workman, who came through a doorway not previously discernible. Following instructions, he returned and sent Taggart to the prince. Taggart brought with him his thin, sar-

donic smile. "Greetings," he said. "We have arrived at Carlson's heaven. But what is it to be for the rest of us, Prince?"

"Death," said Prince Rovan.

Chris met Taggart's look and for a second his nerves rippled coldly.

"Death is a constant companion," Taggart observed solemnly, but with a dancing gleam in his dark eyes. "He joins us at the instant of conception, and bides his time. Is it time, O Prince?"

"Tomorrow," said Rovan. "The Princess Myrna has brought a new and terrible force into Telanus. My brothers now know it was I who stole her and hid her away in space. For that I must die, once the games are done. I will be given a chance to die honorably, in combat. On your planet, does love beget hate?"

"Frequently," Chris said.

"Our perfected system cannot contain so explosive an emotion. We have educated it, among the people, into limbo. We princes have shared our queen, and shared our responsibilities as rulers because our interests were similar; there was nothing for us to envy. Now our unity is shattered."

"Tell us more, Prince."

"We have eliminated all personal weapons from Telanus except for the sabers we carry. Those have a special purpose. We are princes only because of our size and strength and courage. Among the people we are revered as agents of the queen, not as individuals; any commoner physically able may become a prince. I myself have been one less than twenty years. We maintain the virility of the people through a selective system which permits only the strongest to breed. You will understand, tomorrow."

"Why, tomorrow?"

"By special decree. It is not the usual date. Tomorrow the queen expects the princess to die, my brothers expect the queen and we three to die. But I expect to see the deaths of the princes."

"And what becomes of Myrna?" Chris demanded, bluntly.

"We cannot hope to change her love for you," Rovan said, enigmatically.

"No, I think you can't," Chris said. His mind seethed with premonitions; with half-plans, hopes and fears. Rovan had surely not exaggerated. Hate had come to Telanus, on the wings of love. He saw no sign of hate but he felt it strongly—felt it closely around him.

"You plan that we three shall kill the princes?" Taggart watched the ambling scarron above.

"I do. My plans were drawn in detail, long ago. That mountain of destruction," Rovan jerked a thumb in the direction of the scarron, "was to do the work. But it is unlikely that he could have destroyed all nine. However, I am not ready for that plan. The interference of you Earthmen has spoiled it. Myrna was not to have lived until all were dead. So now the plan is dead. I have a better one."

"Tell us, Prince."

"But—" began Chris.

Taggart cut him off. "They murdered our friends," he said harshly. "Hardestal, and Sloan, and the entire crew. They will kill us; and destroy everything worth while in Myrna. I agree to any plan Prince Rovan has prepared, if it will work."

"Very well," Chris said slowly. "So do I."



CHRIS LANE wondered if such pageants as he was about to see were indigenous to intelligent races everywhere. The drama, the excitement, the eagerness of the most mild-mannered to see a game in which death was the victor. He thought of the Roman circus, of the chivalric tournaments of medieval times, of the

Latin bull-fight, of the most recent prize-fight where soft gloves gradually had replaced those iron gauntlets wherewith gladiators had crushed skulls with a single blow.

He sat with Karl Taggart in a small balcony overhanging a sanded pit. Before him was a panel with buttons controlling the opening of gates and their closing. Across the amphitheater a larger balcony, more ornate, seated the ten royal gladiators. Today they would prove their fitness to transmit the genes of the race, prove their right to bear those long sabers, and carry to the people the will of the queen.

The people, or several hundreds of them at least, sat upon surrounding walls, dangling their feet over the sand. A third balcony adjoined the second and connected with it by a temporary walk. Here sat six great commoners, large as the princes but dressed in the ubiquitous gray smock; today any one or even all of them might become princes.

Chris punched one of his buttons and a stairway lowered from the opposite balcony. Prince Rovan left his nine brothers and walked, with dignity, down to the arena. He walked to its center as the stairway rose behind him. He drew his saber and flourished it in salute to his brothers, then to the aspirants for his title. He looked then at Chris, who felt his pulse quicken because of the courage he was seeing. Despite his hatred for these princes, he could not deny that they were magnificent in their barbaric brutality; he punched another button.

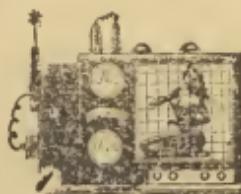
Roaring as it raced into the arena, its six legs a rolling blur, came a pain-maddened carnosaur. Having been carefully tortured behind scenes until its rage reached the maximum, it was now given opportunity to return the favor; it made murderously for Rovan.

The prince leaped aside, his blade flicking out and back. A heavy mur-

mur of approval filled the arena. The carnosaur whirled, one pointed ear slit to its base, and charged again. Rovan darted in and swerved, splitting the other ear and brushing the great scaly body as it hurtled past. Another murmur, still louder.

Yes, Chris thought, a bull-fight, on a frightening scale. Any Earth bull would make but a day's provisions for the animal Rovan fought, without picadores or diverting horses or any other help. He alone must kill or be killed.

The slashing went on and on, neither the man nor the beast seeming to tire. Gouts of blood spotted the sand. Throughout the fight the frenzied roars of the carnosaur were answered and multiplied by a score of waiting brutes beyond the barrier. Rovan's saber snapped from his hand once, but he recovered it, barely in time.



Finally the prince met a charge with only a single side-step, and held his saber at arm length. It pierced the scaly hide and vanished up to the hilt. Rovan released the weapon then and leaped away. Without glancing over his shoulder he walked slowly towards the balcony. If his saber were properly placed, the fight was over. If he had misjudged the thrust, he had no further defense.

The crowd, suddenly silent, breathlessly watched the carnosaur. It raced on for a short distance. Its legs faltered. It managed to turn to the prince and even advance a short way, bellowing its rage and terror. Then it fell and died.

CHRIS BROUGHT down the stairway and Rovan, with dig-

nity, climbed back to his place. He was prince until the next testing day —unless his brothers succeeded in murdering him, now that he had refused suicide.

Chris pushed another button. A small vehicle slid in, was attached to the corpse, and slid away dragging it out of the arena. A man ran in with Rovan's saber and carried it up to him. He then ran down, and was followed by Prince Kalu, who drew and waited.

Kalu appropriately and ceremoniously carved his carnosaur into an activated bulk of mincemeat, and despatched it with ease. It seemed to Chris an impossibility, yet Kalu made it seem even easier than had Rovan.

Prince Mors did almost as well. He slipped once and it seemed that he was gone—but like Rovan he recovered in time and added his quota of carnosaur blood to the arena floor.

Prince Lance next took his station, with the same contemptuous air of confidence. He sliced one ear, then the other. He slashed here and he slashed there until, feeling that enough was enough, he sidestepped and sank his blade. It missed, however closely, any vital spot. The carnosaur whirled, sped forward, and fell like the wrath of doom, on the retreating back. Royal blood stained the sand. The thoroughness of the dismemberment turned Chris' stomach briefly, though he wanted to cheer.

No emotion appeared in the opposite balconies. One of the candidates rose and moved across the connecting walk. He bowed to Rovan, who returned the bow and presented his saber. Chris lowered the stairway, offering up a small prayer for the ambitious commoner.

The candidate jumped widely as the wounded carnosaur charged the stair. He lit in safe territory and raised his saber for the next rush. For several minutes he fought well, adding a number of new wounds on the bleeding hide of his antagonist. But when

he sought to bury his blade in the death stroke it struck on bone and flew high in the air. The candidate was then swiftly shredded and the carnosaur lifted its gory head to roar new challenges.

"Even a Spaniard would free that animal," Taggart muttered. "How many does he have to lick?"

"Five more candidates, and six princes," Chris said. What Taggart said cannot be recorded.

A lucky candidate finished the unhappy beast. He buckled on the saber of the late Prince Lance, and carried that of Rovan as he climbed to his new grandeur. The princes were again ten.

"Isn't this the time?" Taggart whispered.

"Yes. Where is Rovan?"

"Not in sight. Let her go, Chris."

Chris hesitated. What he was about to do was murder, on a grand scale. Never had he killed even an animal, unless as food for another animal, or in self-protection. When he had agreed to this conspiracy it had seemed both necessary and morally right; those towering and overbearing bullies had butchered his friends. In his mind they had ranked as cowards, but the past hour had shown him that they were not; they risked their own lives as casually as they took those of others.

But the alternative was death for himself and Taggart and possibly Carlson, and worse yet for Myrna. A hungry carnosaur was presently to be dropped into that underground passage, whose only outlet would be the courtroom. There a fat and wholly unworthy queen would die horribly. Immediately after, the new queen would be installed. That was the plan, as evolved and agreed to by all the princes—a shocking accident.

But more shocking was the accident planned by Rovan, and agreed to by Chris and Taggart. Well—

Chris set his jaw and spread both

hands over the buttoned panel before him. He covered four buttons at once, looked over at Taggart, took a deep breath, and jammed hard on them.

**B**ECAUSE he happened to be looking that way, he saw Taggart take a wild jump and get his hands on the wall behind them. The arena floor swung up as on an axis, there was a rending crash, and Chris found himself sprawling on the sand, half stunned. He leaned against the collapsed balcony and slid his back along it as he stood.

At close range he saw a veritable madhouse. Both the larger balconies had tipped to dump their royal contents like apples poured from a barrel. A tangle of princes, candidates and sabers writhed as its component parts fought to break away and again become units. But even as Chris noted all this, the entire horde of carnososaurs burst from their adjoining pit and fell savagely upon the struggling mass. A hellish cacophony of hate and terror and agony sickened his soul.

Chris stared numbly for several seconds. This was Rovan's plan, and it was working to perfection; no prince would ever leave the arena. But it was in accordance with no plan Chris had heard that he, too, should be a part of the carnage—though he should have expected treachery. Could Rovan enjoy Myrna while Chris Lane lived?

Galvanized at last into action, he looked wildly about him. Karl Taggart had escaped—he was not in the arena. Their small balcony lay beside him, crushed by its fall. Across the way, beyond the quickly disintegrating heap of princes, the larger balcony hung at a sharp angle, slanting up the wall to the one corner that had held. Too frightened to know fear, Chris began to run.

He ran like an antelope, along the wall. For a few more breaths there was a chance. Kalu and another yet stood and fought, their long sabers rising and falling as they beat back

the ravening beasts. None had eyes for anything outside their own bloody circle. But, to reach the slanting balcony, Chris must cut a tangent to that circle. He ran, gasping for more oxygen, and darted in between the circle and the wall; a carnosaur, its jaws dripping, intercepted him twenty feet from his goal.

Chris jumped into the melee, nearly within touch of Kalu. He tripped and fell, grasped the object that had tripped him, and rose with an ownerless saber in his hand. Back to back with Kalu he hacked clumsily but desperately at the nearest face, until the carnosaur rushed to one side for a flanking attack on both men. Then Chris hurled himself forward and upward, catching a dangling bench with one hand. Terror drove him up the impossible slant, climbing like a squirrel. He reached safety just as Kalu went down for the last time. He found, to his astonishment, that he still clutched the saber; he reached the wall and sat suddenly upon it, as if his legs had been stricken from beneath him.

**D**OWN IN the pit the saturnalia continued, though all men were dead. The frenzied monsters seemed determined that not one limb should remain attached to its body. Unopposed by man, they fought among themselves. Lacking the strength to rise and go away, Chris watched. His mind began to function, in a disordered sort of way.

Rovan, Machiavelli of Telanus, had plotted to remove all opposition in a single stroke. A miracle of luck had saved Chris; but, he wondered, how had Taggart escaped? Could his reflexes really be so perfectly coordinated that he moved, without warning, faster than gravity? Chris himself had not realized what was happening until he struck the ground. And not even then, at first.

He pounded his forehead, bludgeoned his mind. Myrna was in the

palace, heavily guarded. But a word now from Rovan would scatter the guard at once. Or a fat and odious queen, undeterred by giant husbands, might give an order Chris hated to think of. And there was Karl Taggart, somewhere. His human ally, suddenly become more mysterious than any. More intelligent than any, and potentially more dangerous. What to do?

Myrna. He must find Myrna. Strengthened by the decision, Chris rose and buckled the sabre to his belt. It dragged slightly on the ground as he walked the wall and angled across the south end of the arena to the pit which customarily held the carnosaus and was still open to them when they had finished their ghastly feast. Chris pushed the proper button and went down a ladder into a pit. He crossed to the feeding tank and stepped on a plate. The floor lowered him into the passage which, Rovan had said, led to the palace and the throne room. This was to have been the highway of death for the queen. Chris walked the highway, the tip of his saber cutting a thin line through a film of dust.

It was still possible that the savage six-legged executioner of the queen might overtake him. Possible that in pushing those buttons he had loosed his own destroyer. Though Rovan could not have envisioned Chris Lane alive in this corridor, he might have withheld one of his unspeakable pets for a special job. Chris plodded on, hoping it was not so; he was not the swordsman to hold back one of those monsters.

The tunnel widened at its end, and the floor seemed different under his feet. Chris brushed aside the dust and located two of those circular plates. He threw his weight on one and sighed in relief as he felt the floor rise. Blocking sheets slid away to open a vertical shaft. A distant circle of light lowered and spread around him until the pavement he stood on

became part of a larger floor—the floor the throne room in the palace of the Telani.

Chris looked into the narrowed brown eyes of Prince Rovan. The prince was in the act of removing his crimson saber from the gross and lifeless body of his queen. His eyes widened then with surprise, and twinkled with amusement when they saw the saber the Earthman was dragging.

"So," he said. "Almighty Lorchal sends still another pleasure, this momentous day. I would like to hear how you have escaped, and came by a prince's saber. Tell me the adventure."

Chris said nothing.

**R**OVAR SMILED. "You might live," he suggested, "while you are able to entertain me."

"Where is Myrna?"

"The queen rests." Rovan wiped his saber on drapery lying across the huge corpse between them. "The queen should have a smaller couch," he went on, as if to himself. "This one can serve as a pyre. And you," he added brightly, "can burn with her. Think, Chris, you will lie at last beside a queen."

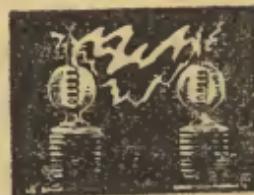
"You never will, Rovan."

"Tonight, little man."

"Not while Karl Taggart lives. He excels you in brains as you surpass him in muscle; it was not wise to plot with Taggart, Prince."

"You mean he survives, also? You are extraordinary, you Earthmen. I did not plot with Taggart; I wished you both a swift and easy death."

"Thank you, Prince. In that case you are in greater danger than I. Taggart is subtle, and I know that he loves Myrna. He could not have escaped unless he had learned of your whole plan. He could have warned me, but instead he, too, wished me a swift and easy death; I wish the same for both of you."



"Well said. You would not care to live as a subject to King Rovan and Queen Myrna?"

"I would not."

"I plan great reforms, Chris. All my people are to be taught what Myrna has been taught. They will be free; there will be no more hatred or fear on Telanus, only love."

"You are a mind-reader, Prince. That is my plan."

"Then let us find and destroy this Taggart. Afterward, we can come to an understanding, you and I."

"I understand already that you are a treacherous devil, Rovan." Chris drew his oversized saber. "Taggart can wait his turn."

Rovan drew and saluted.

It has been said that the greatest swordsman need not fear the second greatest. It is the unorthodox amateur, ignorant of the prescribed ritual, who becomes dangerous because of his unexpectedness.

Rovan slouched gracefully into fighting position, left foot advanced and both knees slightly bent, ready to spring in any direction. He smiled in anticipation. His saber rested in a loose grasp, aimed horizontally at his antagonist.

Chris raised his sharp weapon high, as if to chop some object on the floor. He took two quick steps, whirled the saber around his head, and released it. In a flashing spin its edge sliced through Rovan's left arm and sank deep in his side. Rovan staggered, dropping his own saber. He tore at the blade within him, trying with his remaining hand to wrench it free, but it was too solidly embedded behind

This scan was produced  
and distributed for free by the PulpScans Group.  
If you paid for this digital  
document or a compilation  
of this and other digital  
pulps, you got ripped off.  
But you can still have this  
and more than a thousand  
other pulps for free by  
coming over and joining us  
at  
[pulpdocs@yahoogroups.com](mailto:pulpdocs@yahoogroups.com)



severed ribs and he collapsed while tugging at it.

CHRIS WHIRLED on hearing a slithering sound behind him, and saw that Taggart had entered the court. He was alone and unarmed. His restless black eyes absorbed the gory scene and turned to the face of his fellow explorer. Chris met the gaze and could not read it, but he could feel the mind back of it, remote as a far constellation, its emotions dark as space itself. If there was enmity in the stare, it was not actively alive at this moment. If friendship, it too was dormant.

"Well?" Chris said, at last.  
"Was it you who killed Rovan?"

"It was."

"And he was the last of the princes?"

"The others will have been eaten by now; we were very fortunate." He tried to imitate Taggart's impassivity.

"I believe," Taggart said, "that you understand. To kill the princes, one of us had to die. To protect Myrna, one of us must live. I made the only possible choice; that you could be able to kill Rovan never occurred to me."

"I do understand," Chris said. "Suddenly, I do. You read Rovan's mind. Or his face, maybe, as he spoke. If one balcony could fall, why not another? You expected to fight Rovan, yourself?"

"I would have destroyed him, in some way."

"And now you will destroy me, in that way?"

"No. I retire. How strong is your hatred, Chris?"

"Is Myrna safe?"

"No one could be safer; she is the queen."

Chris looked away then from the searching black eyes. Weariness struck his muscles with a light tremor. He conquered his desire to sit, on the floor if necessary. He spoke deliberately as he outlined his first decrees.

"The people in this place have been taught to revere a *q'ru*," he said. "In this they cannot change, so for the present generation there must be a queen. But there will be only one prince, Taggart."

"Surely."

"As a *menos*, Myrna learned to love me, that too cannot be changed."

"I know it well."

"Rovan, and no doubt others, has a space ship capable of returning to Earth. You will take the journey, bearing messages, and send another expedition of which you must not be a member. Carlson will stay, I imagine, though he may go if he chooses. So long as it is necessary, the queen and I will rule this little kingdom."

"I salute your majesty."

"Thank you, Sir Karl. Kindly take me to the queen, at once."

The ten guards, one appointed by each jealous prince, divided to let Chris through. He saw a joyous face and outstretched arms, and knelt in fealty before the lady who was to be his queen, for all of his days.

THE END

## Two Big Feature Novels of Tomorrow

WE SHALL COME BACK! ..... C. H. Liddell 8  
In the far future, the remnants of humanity find refuge in the sea.

THE BLACK ALARM ..... George O. Smith 28  
Steve Hagen thinks he's free, not recognizing how hate has bound him.

lead off the  
current issue  
of

SCIENCE FICTION  
QUARTERLY



★ Moving swiftly, Conrad and Kaye subdued Krisha. ★

# THEY WILL DESTROY

By Bryce Walton

"Don't you see, you idiots? We're in section 80-epicenter-57. That little light right there happens to be *Sol!*..." But they shouldn't have been back home; they should have been in M-32 in Andromeda!



CONRAD'S stirring consciousness told him that the fantastic journey had ended. The automatic equipments beside their beds were geared to waken them as they approached that far, far constellation. M-32 in Andromeda.

Andromeda! He didn't feel the injectors punching new life into his limbs; he didn't feel anything except growing fear. He heard the voiceless

sussuration of the ship as it thrust itself on through the cold and lifeless night. Something was horribly wrong!

While relays and photoelectric circuits assured his steady rise from the still dust of suspended animation, Conrad's wide-set brown eyes stared wildly at the chronometer. His big body trembled in his bed.

Surely the chronometer was wrong. But the ship was no stronger than any one of its many intricate parts, and everything else was working properly. Suspended animation, the only possible way a human could manage the vast journey, was scheduled to be broken as the ship reached one point

Feature Novelet of Human Destiny

five light years distance from the fringe of the star system of M-32 in Andromeda. At that instant of awaking, allowing for errors involving such great sweeps of space-time, the chronometer should register approximately three hundred years.

It didn't, though. The dial pointed an unshaking finger at—six hundred years.

Six hundred years, four months, twenty-two days, five hours, eighteen minutes, and—

But what did the seconds matter? The four of them had slept on in their suspended animation at least twice as long as they were scheduled to. Nine hundred thousand light years too long.

Surrounded by that infinite darkness expanding forever beyond the thin shell of the spaceship, Conrad was suddenly bathed in cold sweat. Blinking, he peered across the small sleeping cubicle at the other three. None of their shadowy bodies moved in the dim autoluminescence. His eyes passed over the big clumsy body of Karl Koehler the astrophysicist and galacticist; over the slim delicate body of Frank Hudson, astrogator and electro-engineer. He looked at his wife.

Tears stung his eyes as he looked at Kaye. She was so beautiful with her head pillow'd in a deep cushion of violet-black hair. And she was alive; the dials showed their vague spark of life. That was the almost-frightening reality—all alive after so long.

Alive, and lost, somewhere, somehow—

Trembling impatiently to find out what had happened, and with fear of finding out, Conrad waited. Other injectors kept his nerves anesthetized against the intense pain of returning sensation.

Finally, after almost two hours, he was able to get up and move about. The others should be awaking too; something else was wrong. Hurriedly he set their awakening equipment to working, then ran to the forward control chamber, groping his way fearfully through the strangely alien-feeling cylindrical body of the hundred-metre spaceship.

But he didn't open the door. Not just then. No use going in until the others were conscious. He wouldn't understand the full significance of the astrocharts without Koehler. Nor could he know whether or not 'Kilroy', the automatic pilot, had gotten out of commission without Hudson.

He wandered back to the sleeping cubicle. What colossal blind faith they had put in the ship, especially in 'Kilroy.' They had trusted completely in the ability of that mass of free electrons, magnetic fields in a hard vacuum; and it had lost them unmercifully in a timeless immensity somewhere at least 90,000 light beyond M-32 in Andromeda.

Nothing could be done toward finding what had happened, or easing their circumstance except as a group. The others were specialists; he the 'coordinator', a graduate of the Synthesis Academy. He was a non-specialist act-

It has been noted that strong tendencies of mechanistic-mysticism prevail in our times. We saw primitive examples of this in Nazi Germany and Fascist Italy; and we see a more advanced type in the Soviet Union, where the pseudo-science of dialectical materialism functions as the religion of a culture. It is not the form of the "state", or of the economic theory, etc., but rather an expression of the predominant psychological feeling of the period. In this story, Mr. Walton suggests a fully-matured, end-product of the trend, as well as a possible counterpart to it.

ing as informal 'Captain' of the experimental flight, man's first beyond his own galaxy in which had been found only faint hints of intelligent life. His job was to correlate the work of the specialists.

Conrad slid nervously back along the bulkhead. Through the appalling thinness between him and that black abyss beyond the ship he could feel the infinite whispering night rushing, rushing—

The others were beginning to stir painfully. While he waited, he relieved some of the tension by opening and eating a can of concentrates; but after that he felt no better.

He sat there broodingly, his head in moist hands. There was something in his brain, something psychosomatic that ached because it shouldn't be there and wanted to get out. The ache symbolized something else, suppressed, he was sure; it was a hidden fear—perhaps something deeper than fear—imprisoned there.

LATER THEY sat looking at each other, aware of the mutual fear growing among them. Kaye's hand rested in his. Her peculiarly opaque eyes studied all of the others with the discerning eyes of psychiatry. The giant Koehler stretched, his big jaws yawning widely. "Well, Hudson, you ready?"

Koehler's dislike for Hudson was ill-concealed. Conrad understood that, though he had tried to control his own distaste for Hudson's particular psychological type. Cynical, egomaniacal—incipient paranoia, Kaye had said. His motivation for volunteering for this flight was a symptom; he had said he wanted to be the pioneer of man's eventual conquest of the Universe. Unpleasant obsession, Conrad had thought. Yet many men at the time they had left earth had probably had somewhat similar ideas.

But those men were gone now, dead a long time. What men moved now in their patterns? What ideas prevailed

now? Little chance of their ever finding out.

Hudson was smiling thinly. "Sure. Let's take a look at 'Kilroy.' Not that it makes any difference now; we're through. A delicate mechanism like this either works right, or very, very wrongly. And it caught us asleep. But we're only the first; not important. Men are tired of a barren Utopia. We need a Universe to conquer, to bend to our will. There'll be plenty of other ships."

Kaye smiled at him. "We each have our individual motivations for volunteering for this journey, Hudson. Koehler simply loved the stars. Alan—" her eyes found Conrad's—"wanted a chance to lead men under new conditions, test his power of adaptation as a coordinator. As a psychiatrist, my reason is primarily an interest in human reaction to such inhuman conditions as this, and possibly to help in case of maladjustments. But yours, Hudson, seems to be compensatory. Don't you get any *personal* satisfaction? Is a dream of some future vast conquest your whole motivation?"

"Is it?" Hudson was on his feet. His eyes were narrow. "I rather think it's my own affair; I'm not concerned with your psuedo-scientific prying."

Conrad intervened. "Break it up! I hope we can all realize how important unity is going to be from here on out. Come on and let's see what the control chamber has to say."

"It won't make any difference," said Hudson as he started up the tubular corridor.

"He's probably right," growled Koehler in his deep monotonous basso. "We're lost. I could have plotted our return from M-32; that was all arranged. But from wherever we are now—" He shrugged his huge shoulders.

INSIDE the control chamber, Koehler voiced one booming roar of astonishment, stood staring at the observation screen over the control panel,

He stood there with his mouth hanging open, then whispered. "It can't be—it can't."

Conrad and Kaye saw no meaning in the screen, saw only dead blackness spread across with countless billions of lifeless frigid white dots. Hudson wasn't interested in the screen. His slender hands ran lovingly over the smooth gleaming surface of Kilroy, a big case of hard vacuum, aswirl with electrons and dynamic magnetic fields.

Hudson checked dials, gauges, graphs. "Kilroy's okay. Nothing wrong with the controls." That's what his voice said, noticed Conrad, but his eyes shifted, swirled with little specks of hidden fear. "Yes, I'm sure Kilroy has operated perfectly. But that chronometer—you, Koehler, lover of the stars. What do the stars say?"

"Ahhh—" groaned Koehler. "Take a good long look at this chart; check it with what you see there on the screen. I'll have a padded cell rigged up."

They kept on looking.

Koehler cried. "Don't you see, you idiots? We're in section 80-epicenter-57! That little light right there happens to be *Sol*! We're inside Pluto's orbit now. That's *Earth*."

Conrad managed a harsh aspirate. "It would appear that we have been to M-32 in *Andromeda*—and back again!"

"But we were in suspended animation," said Hudson with sudden violence. "You're crazy; it's an illusion."

"I think the evidence is obvious," said Conrad.

"But someone," said Hudson nervously, "someone among us had to have wakened to compute the return, reset the controls, replenish the anesthesia capsules, chart our course. And it's no coincidence, you know, that of all the infinitude of places we might have ended up, we've returned directly to *Earth*."

He looked at Koehler. "You're the only one who could have charted our return with such precision, Koehler; let's have an explanation."

Koehler's face reddened. "Okay,

Hudson, what about you? You're the only one who could have worked over Kilroy for the return flight! I didn't plot any course back to earth, but even if I had, you're the only one who could have gotten it back here."

Hudson lunged at Koehler who dodged the blow, grabbed at Hudson's jacket. Conrad stepped between them. "Relax," he said.

Kaye's voice was not too well controlled. "One among us, someone, must have awakened and accomplished the initial work necessary to return this ship. And he must have had a good reason. Doesn't anyone remember anything?"

No one did.

"Six hundred years—thrown away, lost," said Koehler oddly. "You'd think we would be glad it turned out this way. But we're not, are we? We're scared silly; we're scared because we know that something happened—something happened in *Andromeda*."



KOEHLER was in the observation 'blister' working over a report. "For whom, or why, I wouldn't know," he had said. Hudson was stretched out on his bed reading from a volume he had brought along entitled: *Conquest—A History of Man's Evolutionary Motivation*, by Anschull Myers. A monistic, dogmatic work that would appeal only to paranoid thinking like Hudson's.

Conrad talked with Kaye. Her hand trembled a little as he held it and looked into her eyes; he always found a great deal of strength there.

"Well," she said. "I can't find out anything. We've all been subjected to both pentathol and hypno-rays, and our unconscious minds seem to be completely blank."

"But there must have been some processes even after we went into suspended animation," insisted Conrad.

"What kind of censor would block

off both pentathol and hypno-rays, Alan? It's impossible; they'll dig out anything. Yet, I agree that there must be impressions there. Six-hundred yours—nothingness—one might almost think that life and death and time as we've known it is just an illusion like the old mystics were trying to convince every one of when we left Earth."

"Come off that," said Conrad with not all mock concern. Then doggedly. "Space-warp, whatever that might be—well, there must be *something* to explain what happened. We could have been influenced unpredictably by displacement due to intense gravitational pull, or—"



Hudson threw the book aside, jumped to his feet. "But not in six hundred years. That would hardly have allowed us to circumvent a space-warp."

"I sit corrected," said Conrad wryly. "You two console each other," Hudson snapped; "I'm going into the control chamber and take another look at Kilroy."

Kaye stared at the panel that closed automatically behind Hudson.

Conrad said. "Don't you sense that something's happened that is—well— forbidden? Sounds ridiculous doesn't it? Anyway, I feel like the answer's in my head, in spite of your pentathol and hypno-rays. But I can't dig it out."

Her answer was low; he scarcely heard her. "It must have been so alien there, so far from earth. What was it really like? Where were we, really?" Her voice rose, sharpened.

"Alan—we've got to find out where we were. And if we even reached M-32 in Andromeda. What happened there? Why? Why, Alan?"

The panel opened again. Koehler lurched into the room. He stood there, white face staring, his hair a bushy

mass. His heavy mouth worked incoherently, then words spilled out. "Something's happened to Hudson! In the—control chamber!"

Conrad ran past him, Kaye followed, then Koehler. He heard the big man muttering. "I heard him go in. Then in a little while he—screamed; it sounded very bad."

Conrad found Hudson sitting on the mesh grid. His eyes bulged with a mad vacant kind of light. His hands pawed around in front of his greenish-white face. He slid back away from Conrad, moaning and crying softly.

"Hysteriform seizure," said Kaye quickly. "Maybe it's only temporary—I don't know. Meanwhile he's dangerous. I'll bring a hypo, and while he's unconscious we can lock him up in the spacesuit locker."

She returned quickly, efficiently injected Hudson while Conrad and Koehler held him with great effort. After he was locked up, inside the small room aft, Conrad asked Kaye to warm up some concentrates for them to eat before they hit Earth's atmosphere. Only a matter of a few minutes. He didn't want her to go with him then into the control chamber.

Koehler walked with Conrad as far as the door into the 'blister' where Koehler spent most of his time.

"I checked our course," he said. "We're hitting Earth dead center; a bull's eye. If I didn't know better I'd say I *did* chart this return from Andromeda; it was perfect." He closed the panel between them. Conrad went into the control chamber.

**H**E SAT THERE on the deep foam-rubber mats staring at the observation screen and at the smoothly clicking controls. That odd psychosomatic ache in his head was stronger now; a dull, nameless cold blew through his mind.

He shook it away partly, stared at the screen. That was Earth looming strongly. The ship was still on automatic control, thought Conrad grimly. All in the hands of Kilroy now, just a lot

of free electrons; but it was still more reliable than he would be. He could change the ship over to manual, try bringing it in himself. He wasn't a specialist, though; he knew the principle but not the practical applicational experience. Only Hudson had that, and he was a raving madman.

Conrad gripped the edge of the control panel. He said into the intership audio. "Strap yourselves in your shock chairs as directed. It may be a pretty awkward landing."

Awkward was hardly the word. Kilroy was constructed to handle everything about the ship, including blast-offs and landings. But Kilroy didn't have free agency; it couldn't abstract. They'd probably smash into a charred lump.

Conrad stared awed, at looming Earth, shining twenty times brighter than the reflection from the moon. Black shadows and bright splashes of earthlight contrasted. Behind it the Sun was setting, surrounded by its corona and zodiacal light. The Moon, slightly blue with a white rim, shown behind.

Then the earth grew completely dark except where the Sun splattered down on its far half, a pool of light bright white in its center and radiating outward into dissipating orange and browns.

Conrad said into the intercom. "We're landing. We're back—home—" His voice choked off.

After six hundred years. But Earth had grown much older, though they on the ship had not. Evolutionary metabolism had an accumulative speed. After a slow start, it had moved with frightful rapidity. So much could have happened—

Conrad froze. They were low; he could see land looming that he had never really expected to see again. A splotched expanse of faded colors with tendrils of rivers and splashes of lakes faded strange blue. Along the far horizon stretched a blue and yellow mist.

He said with difficulty now into the intercom. "This is it, Kaye. I'm leery about sending an advance notice.

We've been away a long time. How the devil do we know what it's like now? What kind of a reception we'll get."

A gigantic mass of green surged across the screen, sullenly flooding it. The automatic controls clicked frantically. The scene in the screen whirled, blurred in a senseless vortex. Nausea gripped Conrad, and he knew there had been a sudden mechanical let-up in acceleration. He felt the ripping bursts of repulsion rocket fire.

Dimly like a sound in a bad dream, he heard the grinding roar. It exploded in his brain. He found himself staggering blindly out of the control chamber. Thick blackness pulled at him as he staggered down the tilted corridor. He fought desperately against the insistent darkness wooing his mind, called for Kaye, many times.

Then he felt her hand, but he saw only a frightened blur that must have been her face. He heard Kohler yell.. "Hudson—in the locker! I'll get him!"

Cold air. He knew they must have gotten out of the ship. Then a blast of heat seared his face as he stumbled over rough ground. Cool air struck his face again. "Kaye," he said. "Kaye!"

But neither her voice or hand were strong enough. He drifted away, dropped on down into a dense dark; it was soft and nice there. He would stay a while.

"Alan!" Conrad would know Kaye's voice anywhere, even in a displaced nebulae, in some closed Universe, even in Andromeda. If there was such a constellation, such a thing as "time" at all in which you could lose six hundred years, and have it haunt you with some monstrous secret that you had to name, but feared to name—

"Alan, are you hurt badly? Say something!"

He tried to say something. He felt her wet face against his, her soft breath crying over him; and he wanted to say something but he couldn't.

"Alan—some men—they've taken

us prisoner. I couldn't leave you. They have us in some kind of aircraft; they're taking us somewhere. They won't say anything. I'm afraid—Alan, please open your eyes!"

He managed it then with great effort. Things went round in a colored mist. Two men over controls...a 'blister' with clouds rushing past...a spherical flying craft...wingless...moving with silent speed...Kaye's face...tears...

"Shut up, Kaye. I hate girls who cry."

He heard her hysterical voice fading away. Her face whirled, got smaller, exploded in a rain of yellow lights. Soft slumber pulled, clung. Numbness crept in. He was drifting gently on clouds of sun-yellow beauty, through splashing craters of color, symphonies of soaring song.

*Andromeda*, a small voice said.

M-32 in Andromeda.



ONE HE HAD found Paradise. Men used to believe in Paradise, celestial spheres...

There was no familiar sky; it was golden liquid flowing down over a panorama of strange trees with foliage of topaz and sun amber that glistened and shimmered; and splashed with great seas of gigantic flowers of flaming scarlet; immense valleys of curtained mists, trembling rainbows of aureate lights, harlequined with cratered colors.

There was a lovely 'oneness', a fusion of form, of colors and music and more material reality in an ecstatic, endless chord, ringing, caroling, calling...

Gigantic birds soared through rainbow veils on wings of gleaming emerald, and pale tenuous figures swam in pearly flowing waters and showers of amethystine floods.

Sound, voices, tendrils, pale lovely faces, not human. They traveled with

him, down an endless hall of silver light. He could move; he followed their beckoning call. Gentle, sweet voices fondling him with fingers of gentle curiosity.

He felt Kaye near him—but only as a shifting tremulous cloud of freed existence. He knew she was laughing with the sheer joy of unleashed care, and the sound bubbled and tinkled and echoed through the vaulted splendor of the place like the crashing of a million tiny crystalline bells. Where her teeth might have shown he saw only glittering shafts of ivory light.

A delicate petaled face peered wonderingly into his. A small red mouth opened. A little cry of tinkling horror shattered the beauty.

"*They will destroy*," the tiny voice said.

The cry rippled away, shimmered and shattered like exploding prisms. "*They will destroy!*"

*Evil.*

*Destruction. Destruction, forever.*

The luminous, webbed mist suddenly darkened in wavering black veins like spilled ink, running out in darting ragged rivers of despair. The flooding symphonies of carillon song shivered, dimmed into faint dissonances and grating dischords.

A chorus of those alien frightened petal faces cried. *Evil. Destruction forever and ever. Until nothing remains.*

*But only the one is evil. The other three carry the vital seeds that can grow to glory.*

*But the evil one must die.*

The sound and the glitter fused in discordant crescendos of horror. *They must die, the evil ones, though they have never learned to live.*

It vanished. The great color-splashed forests with its crimson flowers; the jeweled birds; the petal faces and the symphonies of song. A grey suffocation closed over him and choked him in acrid vileness. He smothered and cried out. And then there was only memory that died beneath grey depthless cold.



AS HE OPENED his eyes, Conrad wondered if it were a dream. It seemed too alien and too utterly lovely, even for a dream; and it seemed to have no meaning, no possible significance. It wasn't complete. He blinked his eyes. A big bronzed figure in transparent plastic clothing of a strange design stood there.

Conrad was sitting in a low metallic chair. A heavy helmet was on his head from which thin wire tentacles led away to large gauged units. The man handed him a glass of colorless liquid and said in a barely comprehensible English vernacular. "Drink this; you will feel better."

Having no reason to doubt him, Conrad complied; meanwhile he studied the big man. His skin was dark, his face angular—not cruel—worse than cruel. It was a completely amoral face. The big man's two feet added up to only eight toes.

Conrad saw part of the big room. It was gleaming with metal, naked and harsh with no warmth. No warmth anywhere. Everything metal, benches, the machines covered with dials and gauges; there were two large tri-dimensional screens waiting lifelessly on the autoluminescent wall.

The stuff he had drank was potent; the throbbing was gone. The burning fled from his eyes, left them clear and bright. The big bronzed man's pale, emotionless eyes looked at him without any reaction at all that Conrad could see, unless it were vague distant curiosity.

"Just call me guinea pig," said Conrad. The man stared. Conrad heard a nervous laugh to his right and behind him. "Kaye!" he turned.

She was in the same predicament as he. In a low metallic chair with a silver helmet covering her violet-black hair. "Thank Mars you're conscious, Alan! I'd about given up hope."

"I'm all right, Kaye. And you're looking swell, too."

The big man mused. "Curious types.

It's odd; your minds resist our probbers. But you'll give in to us eventually. There are many ways remaining."

Conrad still looked at Kaye. Like him, she was bruised, cut, her clothing tattered ribbons. "Kaye, how long have we been here?"

"Just a little while. They've been trying to probe our brains. Evidently they've found nothing at all. He thinks all that pre-suspended animation content of our minds is only fantasy thinking, that we've been intentionally conditioned with meaningless thought to mislead them. He thinks we're enemies, of course. I—I haven't told him anything." Her eyes finished a meaningful message. *Don't talk, Alan. Don't tell them a thing.*



The big man brushed his thin nose with a slender hand. His voice was terse, without color. "You submen—it's hard to believe you're descendants of human stock. Living like animals in the forest, ignorant, stupid mystics! Come—what were you doing near Shiva?"

Conrad shrugged. Kaye said. "Shiva, that's the name of this city."

"Please," the questioner said. "Enough pretense." He turned back to Conrad. "Now. What were you doing out there? We know that you *Upinshads* are childishly plotting against Shiva. Even though you mystics claim to have nothing to do with material things such as machines, we know you had some kind of weapon out there in the forest. Children can start fires. What were you doing there?"

"I don't know; really I don't."

"You must know. The forest burned for half a mile. What kind of a weapon were you trying to use?"

"I don't know of any weapon."

"Where did you get this odd kind of cloth? When did you animals stop wearing the skins of animals?"

Conrad shook his head, studying the man. His questions didn't hold any real urgency. He wanted to know, but it didn't really matter. Evidently the Upinshads were far indeed beneath the frigid dignity of the people of Shiva.

The man stepped back. "This sort of secretive activity has forced the inevitable upon you *Upinshads*. I can tell you because you will soon be rendered either mindless or dead, and won't be able to communicate the knowledge. The time is here; you've known it was coming. We, the Destroyers, are ready to strike outward, boundlessly outward as is our destiny. As part of it, we're going to exterminate you Upinshads. All of you. In fact, we're going to exterminate all of you within a day; we are only waiting for the decree from the Grand Shamdhi."

THE BIG man pressed a minute stud on a small round crystal on his wrist. A somewhat feminine voice, whiny and distorted, came out of it. "Yes, Lingan."

The man, Lingan, said tersely. "Come up here, Krisha. The subman's conscious now."

Conrad thought rapidly. The loneliness and shock were gone, drowned by desperate urgency.

Well, this was Earth, but it didn't mean much. He had not expected it to be much the same anyway; he had never expected to get back to Earth at all. But with his background of general knowledge and basics from the Synthesis Schools, he did recall the significance of the names.

Shiva—that was ancient Indian or Hindustan, and it meant Destroyer. City of the Destroyers. And Upinshad, too, was ancient Eastern in origin. The Upinshads were devoted to discussions of philosophy and

'intellectual mysticism'—whatever that was, or had been.

Maybe the ancient philosophies of the East had fused with Western culture. The trend had been under way long ago when they had left for Andromeda. A rebound from the futile walls of positive science into mystical worlds of Bhrama, Yoga, and the other philosophies that had arisen, supposedly, in Pamir sixty thousand years before Western Culture had started on its materialistic pathway of machine worship.

But the Upinshads had been considered a rather exalted order among the ancients. Here they were considered submen. Kaye and he were also considered as submen. "You two," he had said inclusively. Then what had happened to Hudson and Koehler? For evidently these men of Shiva knew nothing about either of them nor—

Evidently they hadn't found the ship either.

*What had happened to the spaceship?*

A figure that had every qualification of femininity in theory, but appearing to have very little, if any, in practice, entered with machine-like precision. She gazed coldly at Conrad. "He won't confess either, Lingan?"

"Nothing. Pretends complete ignorance."

"Maybe they are mindless. The Upinshads do have peculiar mental ability, Lingan; they have some sort of control. Remember that Yogin we captured and put through Ward Six? I still insist that he *willed* his heart to stop; there was no physical reason for him to die."

"Krisha, let's not discuss it here. I'll admit it. A subman is liable to do anything; they're unpredictable, like animals."

"Look here," she said to Conrad. "What were you two doing out there? Did you have some kind of machine?"

"I don't remember," said Conrad. "My head aches."

"Well," she said carelessly. "We'll

have to use the electrodes. The electrode needles should find something besides these meaningless fantasies about a pre-war spaceflight, and such nonsense. You realize what will happen, of course, if we use them. The mind is almost completely destroyed; only thalamic levels remain. We've sent more than one subman back into the forests as an example, with no mind. If you cooperate, we won't have to use electrode needles. You'll be permitted quick and painless extermination, and that's more than the rest of you Upinshads will get. We're going to spray that valley with atomic dust, you know, among other things."

It would be better, thought Conrad with an inward shudder, if they gloated, or looked even a little sadistic. But there was no visible emotion at all. He bluffed, for time, for knowledge. "I would tell you, but I can't remember. There was some sort of machine, then an explosion. Now there's just a dull ache in my head."

"There was a machine," she said, turning to Lingan. "It's possible he's telling the truth about the rest of it, but it isn't worth our time. Soon they'll all be exterminated. Send him to Ward Seven." She started for the door. "Peculiar dialect, sounds like an animal."

She paused by the door. "See you later, Lingan."

"Yes. Thanks, Krisha."

He turned back toward Conrad. "Well, that's it—the best way for you, too. You'll escape the very painful death the other Upinshads will know. Extermination in Ward Seven is utterly painless. You two are very fortunate Upinshads."

"I'm not quite convinced," said Conrad, and tried to think of a way out. He wasn't manacled at all, except by the metal helmet. Evidently these Shivans considered the Upinshads too inferior even to bother with on that score.

*I don't want to die, he thought. Kaye either. We've been too close to it, and we know what it is.*



LINGAN removed the metal helmet from Kaye's head, laid it on one of the metal benches. He turned to repeat the process with Conrad. Conrad tensed. Behind Lingan, Kaye was creeping forward, the heavy helmet raised high; a fierce determination drowned the fear in her black eyes.

The helmet made a pleasant, hollow thud against Lingan's skull. His eyes rolled up, and his body sagged down into Conrad's arms. "Magnificent," said Conrad, sincerely. "That was quick thinking; you're a real subwoman."

He told her his quickly-conceived idea even as he started stripping the torn cloth from his body, substituting the sleek, skin-tight transparent stuff wrapped around the inert Lingan. Looking down at the results of the completely transparent stuff, he said wryly. "This is almost indecent."

"An amoral society," elaborated Kaye in a small weak voice. Then, stirred by professional enthusiasm, her voice strengthened. "Eastern and Western thought merged during our little absence, Alan. Now neither of them has but vague resemblance to the old. The caste system has merged with Western love of militarism and power. Shiva, the Destroyer, rules. And philosophers, intellectuals, are now living like animals, considered as subhuman."

"Interesting, but we've got to get out of here. The forest would look wonderful to me right now, even as an animal. We've got to find Koehler and Hudson and," he hesitated, "—and the ship."

"Yes," Kaye said it with an uneasy flicker of her long lashes. "The ship. When I led you away from there, the ship was still visible."

Conrad moved the stud on Lingan's wrist radio as he had watched Lingan

do. That familiar, pseudo-feminine voice whined distortedly. "Yes, Lingen."

Conrad was no actor, but he made a good try. The small receiver distorted his voice; that helped. Also he was terse. "Come here." Rather peremptory, but effective.

Conrad moved over quickly to the smoothly-paneled metal door. Krisha walked in mechanically, with certainty. She stumbled, her eyes widened, her mouth opened. Conrad covered it with his hand. Her body was suddenly twisting, wiry cords; but he held her.

"Sorry," he panted, "but somehow this doesn't seem an affront to chivalry." He didn't hit her hard; but she collapsed soundlessly. "If she had any doubts about my being a subman, I'm sure her doubts have vanished."

He dragged her over to the metal chair. Together they stripped her clothing off, and Kaye put the filmy material on. It looked good on her. Or rather Kaye looked good; they studied each other.

"Fantastic," he said, then they went out through the door and down a long straight metal hall.



"No warmth here anywhere," said Conrad.

"It's natural enough," whispered Kaye. "Take every dominant trend of Earth when we left it, carry it out six hundred years along logical lines of development and where does it lead?"

"Extermination."

"You get here, inevitably. There's a synthesis of Western and ancient Eastern philosophy which were always diametrically opposed. Western mechanical positivism has been developed by the warrior class of the East. The thinkers, philosophers, idealists, relegated to barbarism. The ruling class are the militarists and materialists,

worshiping machines, gadgets, science-power, here in Shiva—amorality, statism, individual unimportance, Racial-group superiority. Subservience to state or council. It's all here; only a miracle could have made it any different."

"A bigger miracle will have to get us out of the City of Shiva," muttered Conrad as they walked with slow caution down the long cold hall.

Kaye didn't comment. The hall branched into several corridors. They walked to the left. Around a smooth curve, they found a great oval opening looking over a magnificent city—all metal. A blinding glare like molten steel struck their eyes. Mighty buildings rose to awesome heights, many blocks square at their base, cut through with skyways, and highways. Tubes of metal wound between the buildings.

Conrad leaned against the edge of the high opening, staring with rising hopelessness. That seemed an insurmountable barrier with no weapons, knowledge.

One of those spherical flying craft settled in the opening, clicking against a runway at the opening's base. The panel slid back; a thin slightly grey man started to step out.

"Let's grab the other horn," suggested Conrad, and hit the man in the face. As the figure stumbled back into the flying craft, Conrad and Kaye leaped in after him; they heard someone behind them yelling in sudden alarm.

**C**ONRAD cast one wild glance at the control board, around the rest of the aircraft. Wingless, atomic-powered, he remembered its silent flight. The few levers on the control board were meaningless.

"Try to operate the thing," he urged as he turned, faced the men running toward them. "I'll try to keep these warriors out of here."

Kaye's voice trembled. She had been through a lot, thought Conrad grimly as he kicked one of the dark

men in the groin, parried a peculiar flat-handed punch of the other.

Dimly, he heard Kaye's voice. "I was conscious—I remember this—"

"Try to get this door shut," yelled Conrad, as the heel of the man's hand smashed hard across his nose. Tears blinded him; he dodged. The sharp ridge of hand chopped across his back. An intense pain hitched through his stomach. This man's face was a grinning mask of emotionless purpose.

Dazedly, he heard the clicking sound. The panel shot across, blocked out the face. Conrad staggered back, turned to stand beside Kaye.

Odd that these warriors carried no weapons, at least here in their City of metal. He watched her fumbling at the control levers. But maybe there was only one city of Shiva, one warrior class, so there were no opponents, no need for weapons ordinarily.

Then what did they destroy? Surely there was more to destroy than merely the Upinshads. That had sounded merely an incidental part of a vaster plan for destruction. The Universe—that must be an analogy of some sort.

The craft heaved outward. He heard a tearing grind beneath them, then a sudden, sickening acceleration hurled them skyward. "Good girl," he gasped; "get everything out of this crate you can!"

He staggered over to the cowling, looked out and down. They were suddenly very high. Conrad could see all of the City, miles of surrounding country. And the left half of the City... Conrad gazed at the spectacle, awed, overwhelmed. A gigantic bowl and in it were at least half a thousand gigantic spaceships. They were balanced with noses skyward on four wide spread levelling legs. They were huge, formidable; and they were waiting.

He mentioned them to Kaye. She kept on jerking the levers, but Conrad continued verbalizing thought, and his thought had sheered away from the ships. Something horrible about their gigantic silence. Something—unthinkable.

"This City isn't so large, Kaye. Looks like Southern California country. The ocean and peninsula—but that tremendous forest is new. And the City is many times smaller than it used to be. Florida is different, too; must be a lot lower average temperature now. The forest is all pines, conifers. I don't see any other towns or villages anywhere..."

He turned, swore softly. Kaye had passed out, was sprawled limply across the control panel.

He eased her down on the soft rubber-like synthetic of the floor. Shadows passed over the ship, darkened the cowling. Pursuers, small deadly skycraft, circling, darting. He saw long narrow snouts snap out of the crafts. Guns, power weapons of some kind. He saw no explosion, felt the effects. The craft buckled, sheered wildly in boiling air. Smoke curled delicately from the control panel. The interior was suddenly a dense choking mass of acrid gas.

He jiggled the control levers with desperate indiscrimination, punched buttons. He felt the sudden rapid drop of their fall diminish, start again, then plunge in a plummeting path straight down. The cowling burst open. An icy wind roared through, almost sucking him out of the craft.

He saw a mass of high pointed pine peaks rushing up into his face. The skycraft spun into the topmost branches. A sweet pungent scent of pine clouded him. He heard the crash of limbs, the soft brushing of foliage. The craft groaned, bounded high in the air, crashed again, this time striking thick solid branches, and trunks, and plunging to earth.

Conrad, buffeted around, managed to protect his head with his arms. The skycraft dropped quickly, struck a large branch, rolled over and thudded heavily and with finality against solid earth.

**H**E DRAGGED Kaye out of the wrecked craft onto a cool, shadowed expanse of brown pine needles.

The air was crisp, cool, moving softly through the scented boughs. He carried Kaye a while until she was conscious again, and insisted on walking. Then they ran weakly through the sun-dappled quiet of the great forest.

Sometimes when they could see the solid expanse of blue sky through the high small openings between the trees, they also saw their pursuers circling doggedly.

Once they hid themselves in thick brush while two warriors of Shiva edged past with guns poised, eyes searching. They did have weapons now, elaborately coiled mechanisms suggesting basic energy. They were available when needed.

The effects of the stimulant Lingar had given them wore off soon. Old, prolonged weariness seeped into their blood, slowed them; it began to grow noticeably colder as evening slipped in through the great silent trees. And finally they dropped down, unable to force themselves another step.

Kaye was shivering. They crawled beneath the low hanging boughs of a small spruce that formed a kind of shelter from the cold wind and searching eyes. They lay there in each other's arms, fighting off the invading cold. "Babes in the darkling woods," said Conrad softly.

But Kaye was already sleeping.

Conrad remembered the nursery rhymes he had studied as a part of a course on pre-atomic psychological expression. Part of a study of inherent death impulses expressed in children during the old systems. It had a kind of terrifying nostalgia as those children's songs usually had.

*"Do you remember, a long time ago, two poor little babes whose names I don't know—went out to play one bright summer's day, and were lost in the woods I've heard people say—"*

The warmth from Kaye's body seeped through him slowly; a warm blanket of lassitude settled over him. Above him a night-bird sang mournfully. Some large shadowy form padded by.

*Went out to play one bright summer's day—*

Eighteen hundred thousand light years—and were lost in the woods I've heard people say.

*And when they were dead the robins so red brought strawberry leaves and over them spread—*

M-32 in Andromeda—the petal faces and horror that shattered that beautiful land? Was that a memory of Andromeda?

Extermination. Philosophers in caves sprayed with atomic dust.

*And sang sweet songs the whole day long.*

Poor babes in the woods.



**A** SHAFT of liquid, gold moonlight shown strangely on the man who had parted the low hanging boughs and was awaking him. A white-headed elderly man, with a sun-leathered face of what seemed to be infinite wisdom and kindness.

He smiled gently at Conrad, stopped shaking him, and stood up. He was clothed in animal skins; his cap was silver and black fur. Strong white teeth gleamed warmly. "Hiyah," he said. "You two had better come with me. It isn't exactly safe here. Bears and big cats get pretty hungry after dark."

Conrad said. "How did you know about us?"

"Saw you crash and followed you. Had to be careful though; the *Kshatya* were thick as flies around here for a while."

Kaye stirred, sat bolt upright, stared, then relaxed when she got a good view of the stranger.

*Kshatya*, mused Conrad; a slight alteration of another Eastern word for warrior class. *Kshatriya*. The men of Shiva.

The older man held out a gnarled

hand, helped Kaye to her feet. "We'd better hurry. You'll be safe with us—that is, as long as we're safe from attack. I guess that won't be for very long. But meanwhile the Rigeda fire burns brightly tonight, and you're welcome to join our great *Aum*, even if it's for the last time."

"Sure," said Conrad. They followed him along a moon-lighted path through the towering trees. The wind sang a gentle night song that had undertones of sorrow, and old, old pain.

Kaye hadn't said anything. She walked pensively, staring at the elderly man leading them.

The Rigeda Fire. Conrad dug into his memory. He didn't get the fire part, but the Rig-veda was a collection of hymns which the Aryans brought with them to India—thousands of years before Christ brought his Eastern beliefs to the West. Eastern philosophy had been the big movement throughout the world, when the four had left on their escapist flight to another constellation. And the theory then had been that soon Eastern thought as developed in Asia was to come again out of the incomputable past to rescue Western culture from suicidal materialism.

Even in his time, materialists, positivists, scientists, had been succumbing to 'intellectual mysticism' by the millions. But somehow the fusing of the two philosophies had resulted in a terrifying final form of materialism due to Western culture's obsession with machines, power, with metals and lust for conquest.

And *Aum*. A part of the mystical processes of Yoga. A great sound symbol which was supposed to set up certain rhythms and vibrations to enforce one's fusion with the allness, the oneness, of Karma.

Well, Conrad was no mystic; he wasn't a positivist either. He had always enjoyed the freedom of abstract theory. But he wasn't anything now; he was lost. It looked as though everyone was lost, caught at the end of a blind alley.

The Eastern cults had said materialism was the wrong course, an illusion. And the development of atomic weapons had made such a philosophy most attractive. But during their absence, in suspended animation, while cities rose and fell and ideas with them, what had really happened?

"Ah—hold it a minute will you?" called Conrad.

The man turned. "Call me Risha. What's on your mind, Conrad?"

"But how did you know," Conrad began, then dropped it. "This is Kaye."

Risha nodded. "I know. There are few secrets among true *Upinshads*."

Risha, Conrad knew, had meant sage or teacher. He said. "Risha, we're strangers in our own house, or our own world. I'll explain to you about us before we go on any further, if you have the time."

"Go ahead. Talk," said Risha, "I'd appreciate it if you would hurry though. I'd like to get to the Rigeda Fire before the attack."

The attack. Conrad had almost forgotten about Lingan's statement about the extermination of the Upinshads. But he went on, explained everything about themselves. He was brief. You could be brief with words. With one word, one could say—eternity.



AFTER HEARING their story, Risha looked up at the sky. His long leathery face shone oddly in the pale light.

"You believe me, Risha?"

"Of course. Our Rigeda includes your journey from earth. Few records survived the war except in song."

"There was war after we left?" said Kaye in a hushed whisper.

"Yes." Risha moved away. "Only a few survived." His voice lightened. "We'll sing about your flight tonight at the Rigeda Fire."

His gaunt figure passed into dense shadow, back into a splash of moonlight. A large dark shape crashed away through the undergrowth. Fireflies wavered among the leaves. Somewhere below them an invisible stream churned down over worn stones.

"It's beautiful, this kind of life," said Kaye. "And they are going to destroy it—"

Conrad called to Risha. "Why are the *Kshatriya* going to attack you? What have they to gain?"

Risha's voice floated back to them, seeming a part of the wind through the pines, the soft voice of the night. "Because we spurn the use of machines and all the mores of their kind of culture, they think we're inferior beings. And it is part of their belief that 'inferior' peoples should be exterminated. Then, in spite of their thinking us inferior, they fear us a little; they know we've developed mental abilities they don't understand. There are three castes of us *Upinshads* living in isolated Leagues in this valley. The *Kshatya* will finish us this time; there's nothing we can do. There's really nothing we want to do."

"Don't you want to go on living?" asked Kaye.

"Yes. It would be more interesting to know what part of reality the surface called 'death' is before meeting it, but it doesn't make any difference. In *Samyama* we have learned much. Still we've found only a small part of reality. Given more time, we might know Karma. But we haven't the time; perhaps in some other plane we will go on with the search."

"We know nothing about what happened during our absence," said Kaye.

"Much has happened. Much destruction, regression, near extinction. The ancients knew the road to Karma, the road through three-dimensional

illusion into fourth-dimensional reality; they knew many centuries even before your time, before any records of the Western world began. But the Destroyers came and distorted it, and materialism hid reality. Remember—through history there have always been these people who sought only to destroy and conquer and destroy. There have been others, the thinkers and philosophers; but the Destroyers have won because they forced the thinkers to accept their illusory philosophy. Now it's too late to fight back; we would have to fight them on their own materialistic plane which would be futile. Violence only creates more violence; means must justify the ends."

"The war must have been a horrible thing," said Kaye. "When we left for Andromeda, there seemed little chance for a war—not with atomic power."

"People feared an atomic war," said Risha sadly. "But trapped by unreal material philosophies they seemed helpless. Eastern philosophy swept the world, urging non-attachment to the 'things of this visible world'. Even scientists flocked into the various cults by the thousands. For it was science, really—cosmology that was aware of many other realities underlying the narrow concepts of the phenomenal world. This ancient Eastern philosophy spread like a great fire. But it came too late. War. It was almost final. Only a few left..."

**R**ISHA WALKED silently for a while. The night seemed to echo an unfinished thought, a voiceless whisper of horror.

"It left few people on the Earth. Most of the heavily-inhabited places became radioactive seas of poison. Certain parts of the world remained untouched. This was the one most attractive to those wretched people who still lived. And the City of Shiva rose. The others, the *Upinshads* who sought true reality, were driven into the forests and scorned as idiots. For we retained the old teachings, and we knew that the 'reality' of the materialists

was illusion, and that it led only to final destruction.

"Now the *Kshatya* are through with Earth. It offers no roads to conquest; they're abandoning it in ruins and death."

"I saw the spaceships," said Conrad. "They're all leaving?"

"Most of them; the others will be killed. There are only a few thousand of them."

Risha paused and looked to the West. "They never intend to come back to Earth. They're going to burn their conquered worlds behind them. Conquered worlds, conquered galaxies. For them, there's no end."

Conrad felt Kaye's hand, suddenly damp and cold. "It seems too fantastic and ridiculous, yet it isn't really," she said. "It was bound to end this way. If the pattern is conquest, it must find expression. What man imagines, he creates. What he imagines, he destroys."

"And the attack will be soon," said Conrad.

"We know it will be within a day. We've studied, spent many years and generations in the halls of *Samyama*. But Karma's still a very distant concept for us. We've caught moments of reality through the three dimensional veils. But we haven't even started yet. If we only had more time; relaxing time—"

"But surely there's some way to fight or resist them," insisted Conrad.

"Violence?" Risha laughed softly. "That's only part of the old, old fallacy. The means determine the nature of the ends produced. Violence can never end in anything but more violence; that's only part of the illusion of a restricted illusory three dimensional world."

"*Babes in the woods*," said Conrad, and caught himself smiling grimly, without humor.

Kaye said. "Remember, Alan, how positivistic methods were breaking down? People were dissatisfied."

"Naturally," said Risha. "Everyone was afraid. Five senses, three di-

mensions. And the rulers held people within that restricted area like herded animals, wouldn't let them escape. But these five organs of sense are in reality just feelers by which we feel the world around us. The three-dimensional man lives groping about. *He's never seen anything!*"

"Scared of the dark," said Conrad.

Her hand tightened. Far away toward the West they heard a rumble of what might have been thunder. "They're getting ready," said Risha.

The three walked on, coming to a sheer cliff looming up blackly, and Risha led them inside, around a black corridor and after a while into a large subterranean cavern. There were people, people in animal skins sitting around a fire. Philosophers in caves.

The Rigeda Fire. The people were singing. Hymns out of a lost Hindu history sixty thousand years old, interwoven with many sagas of the intervening centuries.

THE PEOPLE greeted them, acknowledged their presence, their history, with gentle tolerant smiles, then returned to their singing, dark eyes reflecting the flames of the Rigeda Fire.

Risha stood silhouetted against the flames.

"*Manu*," he said ringingly. The singing died. "*Samyama*."

There was wisdom here, thought Conrad. He saw it in the twisting shadows in the cave, in the faces staring into the flames. Wisdom of many ages. Mysticism had fused with science; science's primary concern, ultimately, had always been with the invisible. Twentieth century mysticism had been the beginning of a newer science of the fourth dimension, of non-Aristotelianism, the same



as alchemy and astrology had led the way into 'sciences' of a more acceptable kind.

They had *felt* the fourth dimension.

*"When we reach the fourth dimension, we'll see that the world of three dimensions doesn't really exist, and has never existed! That it was the creation of our own fantasy, a phantom host, an optical illusion—anything one pleases excepting only reality."*

But Ouspensky had talked only to the stars. A few people heard. Too late. *Shiva* ruled.

*"Infinity isn't an hypothesis, but a fact, and such a fact is the multi-dimensionality of space and all it implies, namely the unreality of everything three dimensional."*

*"A restriction of only two dimensions is inconceivable to a man. A restriction of three dimensions is equally inconceivable to a fourth-dimensional consciousness. And the fourth dimension..."*

The Hindus had called it Karma: *"Everything will exist in it always."* It was the eternal now of the Hindus. But whatever one labeled it, perhaps these Upinshads, hindered by ancient forest mysticism, were again on the right track. They needed time.

People had broken faith with 'science' and had sought a higher reality which they called Karma. The dissatisfaction with science had been well grounded, and the complaints about its insolvency entirely just, because science had really entered a cul de sac out of which there had seemed no escape; and the official recognition of the fact that the direction it had taken had been wrong had been realized—too late!

These philosophers living in caves practicing ancient Hindu rituals of non-attachment, were on a saner road. But the Men of Shiva were destroying them. Because the Men of Shiva had been made for destruction.

*Aum. Aum. Aum.*

The chant rose stronger and vibrantly from those around the fire. Conrad gazed into the hypnotic flames.

And suddenly, without any physical motivation, the flames burst, lifted up and up, roaring and sighing. But no one had put any fuel in the fire!

He remembered. The power to identify oneself with any object!

*Samyama!*

The brilliant body of the Rigeda Fire lifted higher and higher, ate out the high cold shadows of the cavern's roof.

And died.



**T**HE DISTANT thunder sounds continued, rolling nearer and nearer from the City of Shiva. The ceremony of Samyama, of identification, continued also, oblivious to their approaching destruction.

*Aum. Aum. Aum. Aum—*

Kaye whispered. "The psychologists had words for this sort of thing. Auto-suggestion was one. That was a good word, then; what does it mean now? Alan—look!"

The pile of wood fuel beside the fire seemed to shimmer, shift. The top piece shivered, trembled as though some invisible nervous hand were grasping it. Abruptly it rolled down from the top of the heap, scuttled across the stone floor like a live thing; it slowed, slowed, did not quite reach the flames.

The chanting of the sound-symbol *Aum* died in a sigh of resigned failure; then the Rigeda hymns began again.

Risha sat down beside them. "You see. We only touch the barest fringe of the higher plane of reality in which all is one. We need so much more time. But Shiva wins."

He sat staring into the flames, his lean face like rough brown stone in the light. "Karma," he whispered. "The unbroken oneness—only the in-

visible, the hidden, preserve for us the illusion of time."

"You believe that everything is—is one," said Kaye. "So death is only a part, a facet of a larger perspective?"

Risha nodded, his eyes bright with inner fire. "We know nothing of reality. Only glimpses, touches. Death isn't an end, any more than birth is a beginning. It's all part of the 'eternal now'. Our three dimensional world we see is only surface, part of the fourth dimensional plane. Death's only a part of a part of a surface. We have no fear of it."

Conrad was on his feet. "I wish I had your faith, Risha, my friend. To me, the invisible remains invisible. Death has a horrible finality for me." He lifted Kaye by the hand. "Let's get out of here—as far from this valley as we can."

She nodded. "I guess I'm still with you in the third dimension; I think I'd prefer almost any dimension to the third right now. Let's go."

"You can't escape the Men of Shiva," said Risha. "Or even if you could, why prolong the inevitable?"

"We've got to live," said Conrad. "I don't know why; maybe with you Upinshads, working long enough, we could find out why."

Risha smiled with sad tolerance. "You still think in positivistic terms, but you're a real Upinshad, anyway. You're not evil; you have little of the Kshatya's blood. Just remember, Conrad, that your three-dimensional world is narrow, only a concept involving small sections and surfaces of reality. Remember that the cause of the visible is the invisible."

Conrad smiled tightly. "You coming with us, Risha?"

"Where? The Ship of Shiva will turn this whole continent into a radioactive hell. They'll leave no intelligent life on this world when they go!"

But he followed them out of the cavern into the clear cool night, and a soft-voiced grey-haired woman held his hand and walked with him.

OUTSIDE they stood for a moment listening to the distant thunder.

"Have you no machines, no weapons at all?" persisted Conrad.

Risha shrugged. "The mind is its own reality—it contains the stuff from which we create our illusory machines. The mind needs no shiny symbols, no machines to grind it to destruction. Wha—"

Interrupting Risha's 'truth', a shape stumbled toward them from the line of darkly ingrown trees. "Koehler!" yelled Conrad.

The big man stumbled to his knees. Conrad dropped beside him, supported him there. Koehler's face was scratched and bloody; he gazed blindly at Conrad and the others, then groaned sudden recognition. "Hello, Conrad. How's the coordinating business?" He coughed, gasped for breath.

Conrad felt his big frame shiver. "Where've you been, Koehler? What's happened? Where's the ship?"

Koehler licked his heavy lips. "I guess I'm insane. I can't figure anything; I feel like I've been walking in a fog; I can't see anything!"

"How'd you get here?"

"The Ship brought me. It landed over there about a hundred yards. I heard your voices, I guess, I don't know. I saw a light. Something chased me, something big that roared. If it had caught me—"

"What happened after we landed? You were going to unlock Hudson—"

"Yes, well—I stayed in the ship, tried to get to the locker and get Hudson out. I didn't make it; the ship knocked me out. Hudson was still in that locker when I came to. He was yelling. He kept saying, 'Stop the ship! Damn them! Stop the ship!'"

Koehler lifted a big raw hand to his eyes. "You won't believe this—but about then I began to realize that the ship was in the air, coasting along on stratospheric power. I ran into the control chamber. There wasn't anyone there, never had been. Listen now—I

know that the ship blasted off alone!"

"What?"

"Sure, I'm crazy; I can't help it. It landed again, too—and no one was at the controls. The ship went out to sea, landed out there in the water, just off shore in a fog, and sat there. It was waiting for something. I could hear Hudson screaming, but I knew I shouldn't let him out."

Koehler raised his tortured eyes. "Conrad! The ship's alive!"

Koehler threw off Conrad's hands, staggered to his feet, weaved. He stared at Risha, at the woman standing beside him gazing serenely at the sky. A flash of white fire curved upward exploding in pyrotechnic pillars far away above the mountains. "You say the ship brought you here, Koehler?"

Koehler's mouth twitched. "You don't believe me, and I don't care."

"I believe you," said Conrad. "The ship brought you here, right?"

"Right or wrong, it did," said Koehler. His hands trembled as he pushed them through his thickly entangled hair. "Look, I don't know what really happened. I know Hudson wasn't piloting the ship, nor I. I kept Hudson locked up and as far as I know he still is. I wouldn't let him out; he's a screaming maniac. *Stop the ship!* he keeps yelling over and over. *Destroy the ship!* I don't know why he keeps yelling that, do you?"

"Not yet," said Conrad half to himself. "The ship landed on the sea, you say—then what?"

"Well, it just sat there on the water; it was waiting. I don't know what for. It was so still there, so quiet in the fog. I tried to get out of the ship, but the doors wouldn't open. When I tried to work the lever, I couldn't. I couldn't touch it. I tried—"

Koehler sucked in his breath. "I wondered about the ship. I couldn't stop moving. I was afraid; I admit it. Every time I started to think, I got scared. 'Eighteen hundred thousand light years,' I'd say to myself, 'and

no one remembers anything. Six hundred years all shot to hell.' And all the time I could feel the ship around me. It's alive, I know it's alive!"

Koehler's shaggy head twisted. "Who's this?"

**C**ONRAD explained; he told about the City of Shiva, and about the Upinshads, the philosophers who had been driven into the caves; about the Kshatriya.

"It's time now; they're going to strike," the woman beside Risha said in her calm serene way. And Risha answered. "Yes. This is the Time of Shiva."

Koehler started to speak, stood silently gazing skyward. There was a tremendous streaming blue fire, then a wave of wind. Far down the valley was audible the repercussions of great explosions. A blast of boiling air swept them. The great pines bent low, snapped back, quivering.

"This is madness," yelled Koehler. He shook his fists at the rising mushrooms of fire. "They're planning to conquer the Universe?" He threw back his head and laughed wildly. "The Universe! A few hundred ships manned by a bunch of crackpots who—" He stopped laughing, stared at Conrad. His voice dropped to a whisper.

"But they can, can't they? They're human; they can go on and on once they get started. What can stop them? *What?* I hate myself because I'm human too. They'll go on destroying, tearing everything out of their way until—" his voice died.

A buried ache in Conrad's head shot out burning sparks. A small musical voice, trembling like shattered glass, said: "They will destroy."

"Destruction. Destruction, forever."

Risha put an arm about the woman. Conrad heard him say. "If we'd only a little more time, Madge. We're at the gate."

Another tremendous explosion shook

the world. A gigantic flash shone like a new sun across the sky; the whole country was lighted by a searing brilliance, like the strange glowing of a new and deadly aurora borealis, golden, purple, violet, gray, and blue, rising through intensities of heat into the X-ray part of the spectrum, into invisibility. The darkness of the forest became pits of flashing light; every distant peak and crevasse and ridge assumed a horrible clarity and beauty.

A few seconds later came the air blasts pressing hard, followed by howling roaring sound. A wind of hurricane proportion hurled them along the ground. There was doomed finality in the awesome roar and supernal fire.



CONRAD crawled against the howling winds to Kaye's side. He heard the blundering frantic flight of animals crashing wildly through the glimmering hell; saw wild eyes blazing madly as they bounded down the valley toward the sea. He gripped Kaye's arm. "The ship," he gasped. "It's our only chance." He turned, yelled at Koehler a few feet away. Fine debris rained on them in clouds of minute spray.

Koehler stood facing into the wind, shaking his fists, swearing.

"Snap out of it, Koehler. Lead us to the ship! Know where it is?"

"I guess so. I can try to find it. But I'll not board her, not that ship, it's alive!"

"Maybe we can stay alive if we find it."

Clutching each other's hands they fought their way into the moaning wind. Conrad turned, yelled at Risha who stood with his arm about the woman. They were looking quietly toward the distant fires. Conrad

turned away from them. They didn't care; nothing mattered. They had known a part of Karma, a touch of 'reality'. Maybe these Upinshads were insane. What was reality? Karma. Fourth-dimension. Words. But no one had ever answered the enigma poised by Kant. "*What was the thing-in-itself?*"

#### *Babes in the woods.*

Conrad yelled hoarsely. Koehler had broken away, was running ahead through the mad, distorted shadows between tortured trees. Conrad and Kaye stumbled after him. "You sure this is the way?"

Koehler's lurching form weaved faster through the toppling forest. Weird lights played across the sky; tides of fear-crazed animals, whining and shrieking, surged blindly down the disintegrating valley.

Ahead of Conrad, Koehler's body was ripping through brush, tearing branches aside. Conrad heard him swearing and crying by turns. Kaye struggled silently, her face a white blob, drained by the glaring whiteness of the distant heat.

"It's right here somewhere," shouted Koehler. "Somewhere—"

A trembling roar rolled over them in a colossal sea. Conrad screamed as the pain of high velocity compression waves tore through him; he went down. He crawled, and he saw Kaye dragging toward him, edging slowly over the buckling ground.

Debris, fine and large, pelted him with bullet-like force. Trees crashed in long, splintering cracks. He felt Kaye's hand in his. They were managing to regain their feet, fight out through a barrier of imprisoning branches. The sky was a seething tide of cloud-boiling smoke and flame. A blast of furnace air sucked into his lungs; he coughed, staggered, cried out.

Conrad felt his foot on something soft. He dropped down. He tugged Koehler's body partly from beneath a shattered tree trunk. Splinters of

wood had pierced his stomach; he lay motionless. Koehler looked calm, sane for the first time since they had awakened on the ship; he was dead.

Kaye moaned, staggered as though blind. Swimming through only dim reality himself, Conrad pulled her after him in the direction Koehler had been leading them. Fires burst up around him, seared his face. An antelope sprang past, aflame, shrieking with its graceful neck twisted in an arc of pain.

Red rage, redder than the sky, rose in Conrad. There had seemed to be no possibility of war when they had left in the ship long ago. But man had always rationalized that way. After each orgy, he brushed away the vile film of its touch, and said, "No more. We've outgrown it. We're too civilized now."

Six hundred years ago they had said that, eighteen hundred thousand light years. But there were still men who could only destroy, forever; they knew nothing else. The extent of inherent characteristics had never been known. Perhaps the will-to-power, and destruction, was hereditary, and only death would cure it.

And it had evolved to form the City of Shiva with a few thousand star-vikings in galleys shaped like spaceships. Planets, solar systems, galaxies would be ravaged, pillaged, burned.

*Evil, the little dreamed faces sang Destruction. Destruction, forever.*

*The evil ones must die.*

But those voices were only dreams. Dreams were naive, wishful thinking. The *Kshatriya* of Shiva, under whatever label one chose, had conquered; Earth was going down into final destruction. Earth was only the beginning. "*The end of the beginning*," someone had said long before, prophetic beyond his wildest nightmares.

**C**ONRAD picked up Kaye, staggered forward; he slipped down a sharp incline. He felt the fire licking him; it was hungry. He dropped

Kaye with sharp whines of horror, began beating at the flames around him. He knew agony, knew it in every screaming fiber of himself as he strained, half-blinded, choking, blinded, by smoke.

And then a curtain of smoke swirled aside and he saw the gleaming silver and black hull. It sat there, immobile, implacable, in the chaos of flames and crashing forest.

He sobbed. He dragged Kaye after him toward the smooth outline of the outer lock. Almost to it, he staggered, went down on his face. He crawled then, dragging her along, though he wondered where the strength was, where the will. Visible effect, invisible because—

He was sinking down, giving up, and the door opened for him. Somehow he dragged Kaye inside, through the air-lock chamber, and through the inner door.

The ship trembled around him, and he knew it was blasting off. He tried to turn his head, but he couldn't. He was sprawled out on his back, stirring weakly. A voice, a thought, in his fevered mind ripped with fiery urgency.

*Remember, Conrad, the voice said. Remember. Fight, before it's too late! Remember us, Conrad, and the City of Light.*

And of course he did remember; because they wanted him to. Because there was something depending on the memory that he had to do—now; something of fearful urgency.



**I**T WAS a lonely-looking, isolated sun on the distant rim of the galaxy. They wakened, Kaye and he, and saw the small elfin petal faces swimming through high layers of air that glowed with soft pearly luminescence.

The ship's automatic pilot had thrown them into an orbit around a small world that crowded against a

tiny red sun for warmth. Koehler and Hudson kept on sleeping; the alien things out there had awakened Kaye and Conrad only.

Their small petal faces beckoned, hovering in shimmering clouds on membranes as fluttering and delicate as tendrils of rainbow.

The great jeweled birds he remembered from that other dream returned, winging across an opaline sky. And the petal-faced people looked in at Conrad out of huge golden eyes flecked with iridescent colors that changed.

Conrad didn't know whether their bodies or their minds followed the petal-people down to their City of Light. Conrad felt no fear, only ecstasy; hand in hand with Kaye he floated down through warm cloud layers into that crystalline jewel city of light and song and jade pools.

Communication was mental, or perhaps something even more incomprehensible. It was thought-communication that was partly music, partly movement of color: but there was utter understanding.

And at that moment of mutual understanding—that was when the beauty shattered, became darkened as with stains of wretched ink; the music broke into dissonances and dischords.

For these were alien people who had forgotten ugliness; they lived, breathed, drank, floated in beauty; they swam in a vast sea of it. They were alien to all ugliness and fear and hate. And they found all that was alien to their beauty in the minds of their visitors.

Conrad felt their reactions, saw their round tiny mouths wide with silent fear. Wide golden eyes that seemed to cry.

*"They come from a diseased place; they will carry plagues of violence and death wherever they go."*

*"They are blind; they are lost in a nightmare of illusion."*

*"But there is hope for them!"*

*"Yes. There is hope."*

*"Their minds show that all of them are not evil; they are not all the same. They think they are the same, obsessed with the delusion of similarity. They are of many kinds; some are driven by thirsts that make them destroy and rule; others seek only truths, and these desire to build. There are others who have no positive impulses at all, but float in a strange, unreal land of grey shadows."*

*"Yes. These two are not evil; they have come here to escape evil."*

*"But the two who did not awaken—one is evil and would destroy; the other knows only grey despair."*

Conrad could see Hudson, his eyes bright with dreams of conquest and the grandeur of power. He could see Koehler the lost, battling indecision, uncertainty, dreaming his futile dreams.

*"Their world trembles with the rule of evil beneath which the builders and seekers are helpless. The evil ones must be destroyed; their dark dreams are limitless as the stars are numbered in all the galaxies."*

*"These minds carry the ultimate plans of the evil ones. Read the plans of the evil ones here, the plans to destroy and conquer."*

*"Death!"*

*"Evil!"*

*"Destruction. Destruction, forever!"*

*"We must send them back. Place the spark in their machine, for their machine is built for the spark. Erase our memory from their minds; they must not know until it is done. They must not be moved to act against our purpose. When the evil ones are destroyed, then these two may know; they may return to us then, should they desire."*

*"Yes. They may return to us."*



Conrad groaned as the far sounds died, vague murmurings, rippling, falling away in far sweet tinklings. He had remembered now because they

had willed that he should remember. Voices from far Andromeda. M-32 in Andromeda.

And as Conrad struggled to his knees, he knew why this moment had been chosen for him to remember.

Silently, with deadly purpose, Hudson was creeping toward him across the small compartment. He had managed to break out of the suit locker. His intentions were obvious as he raised the alloy bar above his bloody head. He was going to kill; and he was going to wreck the ship.

That was why Conrad had remembered, so he would know what to do. He had to prevent Hudson's madness from wrecking the ship. It didn't want to be wrecked yet. It still had its assigned job to do.



THERE WAS little about the murderer coming toward him that Conrad remembered. He clutched the bar in one hand. His eyes glared with fanatical purpose; his hands and face were bloody and bruised from crashing against the walls of his prison.

Hudson hesitated, face twitching, eyes roving with fear and hate. "You're in with the ship, Conrad. You're going to help the ship. Help them against your own species! That's what you'd like to do, but you won't. Unless I destroy this ship, it'll wipe out the human race. I don't want that, Conrad."

Kaye stirred, moaned gently, lifted an arm. Hudson swore at her. Conrad got one foot under him, managed to stand. Around him he could feel the steady throbbing of the ship's powerful motors. "You can't touch this ship, Hudson. It's too big for you."

"Traitor! Idiot!" snarled Hudson. "They've blinded you! I've known

about them and their purpose; I've felt them. *They* drove me out of my mind, and had you lock me up. But I've won out. I'm stronger than *they* are. But you're insane, Conrad. Fighting with aliens against your own species! Insane!"

"Only against a part of humanity, Hudson—a part that should have been wiped out a long time ago. Men like you."

Hudson's eyes shifted; the ship throbbed, pulsed under them like a great heart.

He yelled suddenly, harshly. His muscles strained as against some invisible power, then he hurled himself at Conrad. The bar fell. Weakly Conrad managed to duck his head aside, but the heavy metal smashed into his shoulder. Numbness stiffened that arm, left it lifeless. He rolled aside on the grid mesh as the bar swung hungrily at his head. The bar sung past his ear, bounded from the bulkhead. Hudson swore, dropped the bar from hands momentarily paralyzed by the shock of metal on metal. Conrad pushed the bar with his good hand, sent it spinning across the mesh and under a low shelf.

Conrad got to his knees in time to meet Hudson's maniacal attack. They strained. Conrad felt dark waves of blind nausea billowing about him. He tried to pull those sweating bloody hands from his throat; but they were clamped there with a terrible kind of purpose.

Dimly he saw Kaye weaving toward them; then he heard a scream as Hudson kicked her savagely, sent her smashing back against the bulkhead. She sagged down slowly, and kept on sitting there.

RAGE GAVE Conrad enough strength to kick upward with his knee. Hudson groaned, bent back, and his hands slipped away, returned as knotty madly beating clubs. Dull, jolting pain exploded in Conrad's

head. He was falling back; he was lying there looking up at Hudson's heaving body leaning over him. It was a strange-looking body. It shimmered and wavered back and forth, got small, then large.

Conrad thought dully. *I can't move. I want to, but I can't.*

He thought of the ship, the ship that lived. It had intelligence; but it could only operate within the limitations of its bodily structure, and it was only a machine. It couldn't help him now. Could it even defend itself from an enemy who was *inside* of it? Conrad wondered. He realized that he knew nothing at all about the ship now that *they* had altered it. *They* had given it the 'spark'. What specialized function it had now, he couldn't know. Besides, he couldn't move to anything about it if he did know.

He watched Hudson's blurred figure dig the bar out from under the shelf, stand clutching it a moment hesitantly. Then he strode resolutely toward the panel leading into the corridor to the control chamber.

The man's intentions were inevitable. He would smash that automatic pilot. 'Kilroy's' hard vacuum brain case.

The panel slid open. Hudson started through, gripping the bar in his two hands.

The panel darted shut with quick determination; it closed on Hudson's neck. With a kind of triumphant horror Conrad heard the dying cries, saw the body jerking and kicking futilely in the vise of the door. The panel kept on closing. Conrad shuddered, managed to let his eyes fall shut. The panel had closed tight, closed completely.

The ship's acceleration fell off suddenly. He heard the air sighing against the ship's stressed skin. Wherever it had been going, it had gotten there.

Kaye disappeared from his restricted vision, returned. He felt the needle sink smoothly into his arm. He felt the sudden artificial fire brighten his

blood, clarify his vision, shoot energy into his depleted system.

They avoided the horror blocking the floor by the panel, hurried into the control chamber.

Below them, through the observation screen, they saw the City of Shiva. But Conrad's first impression of the city had altered; through what had seemed before an indestructible fortress, chaos ran screaming through many layered tiers of crumbling grandeur.

The ship trembled around them. They saw the dropping rain spilling from beneath them onto the city. Gigantic mushrooming clouds of boiling dust and churning debris shot toward them. A white cloud plumed upward through the center of the blackness. Seconds later came a sustained awesome roar.

As the gigantic column of smoke writhed away, Conrad saw the half a thousand Ships of Shiva again; most of them remained untouched. More explosions leaped skyward, edging toward the ships.

The rows of great ships was the vortex of milling swarms of small dark specks. Then suddenly in a drowning cushion of blasting flame, one of the ships began a slow acceleration. From it, Conrad saw rockets emerge, small, dark and deadly. They plunged straight for their attacking ship.

"Five hundred to one," muttered Conrad.

"Come on, Kilroy!" Kaye said.

One by one the rocket bombs exploded harmlessly in the air. They felt their own ship bend away in an abrupt curve of tremendous speed. Conrad watched the rising ship of the *Kshatriya* arching toward them supported by a surging column of blue flame.

Their own ship bucked, recoiled, strained. Conrad fought dizziness that threatened blackness. His vision blurred, cleared with great effort of will. The rising spaceship ceased to

exist in any visible form. It flamed in the sky like a miniature sun, then became nothing, nothing at all except shattered energy.

Their ship climbed up and up until the entire City and the grounded Ships of Shiva were all part of a small confused pocket in a bowl. They saw the gigantic cloud of falling bombs, dropping like metal rain. Then there was nothing below them but an incredible rising blossom of seething black, billowing gas. An awesome final roaring encompassed them, buffeted the ship.

They circled far over the Sierras, returned when the gas had partly cleared. Kaye gripped Conrad's arm. There was nothing down there now but a colossal blackened crater. It was huge, and of great depths with tendrils of aimless smoke curling out of it through clouds of fine debris. There was nothing else down there; not even small rubble. There was nothing to preserve even a memory of *Shiva*.

"It was a bad memory," said Conrad wearily. "It took a long time to get rid of it."

•

THE SHIP later set them down in a forest clearing, opened its doors for them. They walked away from it in the warm early-morning sunlight, turned looked at it. It wasn't moving. It wasn't saying anything. But it was alive. As they looked at it, the air-lock doors slid noiselessly open once more, and remained open—a question. The ship waited their answer.

Kaye's voice was thick. "Well—shall we? They invited us."

He didn't answer for a while. He remembered the City of Light. A City of incomparable wonder across nine hundred thousand light years. He shook his head. It wasn't that he didn't want to go. Yes, it was beautiful there, but it wasn't human. It wasn't for them; he felt the truth of that; and he knew that if they went to

that City of Light again they would never come back to Earth. And Conrad knew that Earth would be a lot different now, a lot better. It had gotten rid of an old disease.

The ship knew; its doors closed. For protection they covered their eyes, stumbled back into the forest. When they opened their eyes and looked, the ship was gone.

They started walking down the valley slowly, along a small wild stream. Warmth from the water made a faint fog in the morning chill. They walked through areas that were blackened, burned; into others that were green and fresh.

"You were right, Alan. We belong with the Upinshads, mystical or not. No matter what the name is, they're on a right road."

Conrad shrugged. "I wouldn't know. I don't think we're quite so lost now, anyway. We're out of the woods."

"It would have been nice there, though, in the City of Light," said Kaye. "They saved us, and the Upinshads. But their main motive was self-preservation." She paused. "So much space and time, yet there was unity in it all, Alan!"

"I know." Conrad looked at the cloudless blue sky. "They knew human psychology, and they knew about the two basically different kinds of human pathology—both fanatical, both abnormal, but one good, the other destructive. They planned well, caught the forces of Shiva unawares with a terrifically weaponed ship the Kshatriya didn't even know existed. They would have found out about the ship too, if those people in Andromeda hadn't blanked out their minds so thoroughly."

"They looked in our minds, and they read the whole future of men. They saw what had to be done, and they did it, with terrible efficiency. And they made a genius and a hero out of 'Kilroy.' That's where they put the 'spark.' "

Conrad kicked a stone into the water. "Kilroy was close to being able to think anyway."

"Let's rest," suggested Kaye. "We've got lots of time from here on." She stopped, repeated the word. "Time."

Conrad stretched out on the bank of the stream with a long sigh. Kaye rested her head on his arm. They looked at the sky until their eyes closed.

"Time," he repeated sleepily. "Positive science and the concepts of Karma agree on that anyway. The unbroken consecutiveness of phenomena. Events most distant from one another, touch one another in—well—the fourth dimension? The unity, the 'oneness' of Karma, becomes a 'timeless fourth-

dimension' of theoretical physics. This whole episode of ours—involving over six hundred years of so-called 'time' and 'space'—eighteen hundred thousands light years and generations of men. Yet for us it was a unity of consecutive consciousness."

Her voice stirred, half sleeping. "I'll bet poor Kilroy's lonesome. I wonder if he's—?"

Her voice trailed away. He looked at her worn face, relaxed now, soft and childlike in its cushion of brilliant hair.

He closed his eyes. Vaguely he heard birds calling. The splashing of fish in the stream. The soft droning of insects.

"*Babes in the woods—*"



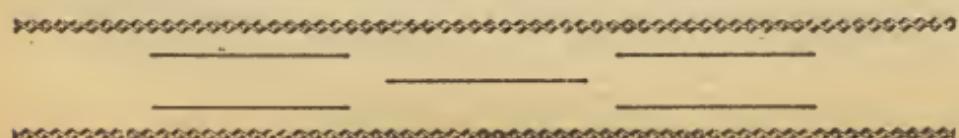
## TODAY AND TOMORROW

THE REQUESTS haven't been tremendously large, but they have been persistent, so we are presenting a longer "feature novel" this time than usual. It meant a lot of fancy juggling, and, as often happens, a few items had to be dropped. We were faced with a choice between pulling out the Petaja story, listed on the cover, and "Down to Earth"—or taking out Lombino's story, "The Tinkerer", which was built around the cover. Neither choice was a happy one, and there would be complaints in either case. I decided, regretfully, to let "The Tinkerer" ride, rather than have a story listed on the cover which was not to be found anywhere inside. You'll see it next issue, and this is a promise.

Incidentally, Ross Linden is not the amazing Mr. Kuttner. The name "Linden" may be a nom-de-plume; and I find it a little difficult to believe that the gentleman has never appeared in print before—although I do not recall seeing him in any other science-fiction magazine. In any event, I'd risk the prediction that he'll be seen again in science-fiction magazines.

Some readers seemed to think that the reference to "The Hoax", in our last issue, was aimed at the so-called "Shaver Mys-

tery". My apologies; I thought it would be apparent to all that I was referring to the alleged "science" of "mental health", which has aroused so much comment. One reader noted, bitterly, that "vested interests would applaud me" for dropping the discussion, and commended my insight in "going with the majority". So far, I haven't heard any cheers—or received any checks—from any vested interest; and, unless my impressions have been completely false, I've been in the minority in taking a stand against dianetics—that is, refusing to accept it as a "science", on the basis of the evidence. The last I heard, this fad was still sweeping the country, and fortunes are still being made on it. The discussion was dropped, here, simply because (a) no one had anything further to say that had not been said numerous times before; it was now reaching the vituperative stage, (b) many readers had noticed this fact and were complaining that it was no longer interesting, and that the letter column of a science fiction magazine was hardly the place for carrying on this type of argument. I agreed. That does not mean that I would refuse to consider valid evidence favoring dianetics, should any come my way—regardless of my opinion that there will not be any.



# FALSE PROPHETS SHALL RISE

Special Article

**L. Sprague de Camp**

IMAGE MERLIN, even if he existed, did not write the prophecies put into his mouth in the time of Charles I by Thomas Heywood, whose *Life of Merlin* described the kings of England down to Heywood's own time, as having been foreseen by Merlin. Merlin-Heywood's description of Richard III read:

*A hunchbacked monster, who with teeth is born.*

*A mockery of art and nature's scorn...*

Solemnly Heywood then assured his reader that all the things described had come to pass. But these vaticinations Heywood evidently composed himself, for his "Merlin" fore-saw, not what really happened, but what popular legend supposed had happened. The real Richard III, for instance, while a creepy enough character, was no "hunchbacked monster" but only a ruthless politician with a withered arm, which, when he was preparing to usurp the throne, he blamed on witchcraft and used as an excuse for beheading his political enemies.

Heywood's *Merlin* exemplifies a piece of pseudo-prophetic writing; that



There's one important thing about "prophetic works" which has been overlooked: to be worthy of consideration at all, a prophecy must be made *before* the event it is supposed to foretell. Elementary, you may say: oh, but of course! Yet, very few of the most famous works of "prophetic revelations" can qualify on this ground!

Is, a work in the form of a prophecy that actually describes things that occurred before the book was written. This peculiar *genre* of literature has a long history, including amongst its most celebrated representatives the pseudo-Sibylline oracles written in imitation of the Sibylline Books.

The Sibyls, a shadowy group of prophetesses, hover on the threshold of Greek and Roman history. Their number varies with different Classical authors, the largest being Varro's ten: the Persian, the Libyan, the Delphian, the Cimmerian, the Erythraean, the Samian, the Cumae, the Marpessan, the Phrygian, and the Tiburian. The Sibyls of Erythraea and Cumae were sometimes considered to be one woman, called variously Hermophile Amalthea, Daphne, etc.

The Cumae Sibyl, whatever her name, lived in a cave near Naples, and wrote her prophecies on leaves which the wind blew about until the stanzas were as badly jumbled as those of Nostradamus. In her youth she was loved by Apollo, who offered her a wish. She asked that she might live as many years as there were grains of sand in her hand, but carelessly failed to ask for eternal youth, so that as the centuries passed she became extremely decrepit. Virgil's Aeneas called on her soon after his arrival in Italy, with awesome results:

*Thus from the inmost shrine  
speaks the Sibyl of Cumae,  
Equivokes fearful she chants,  
the cavern resounding,  
Truth in obscurity veiled; Apollo  
her madness  
Stirs with his reins, and rowels  
his goad in her breast.*

Having told Aeneas what she thought he ought to know about the future of the Latin race, whose patriarch he was destined to be, the Sibyl wrote up her prophecies in nine books, which she offered many years later to Tarquinus the Proud, King of Rome, for 300 pieces of gold. Tarquinus laughed at the price, whereupon the

Sibyl threw three of the books into the fire and offered the remaining six at the same price. The king told her that she was mad, whereat she burned three more, and offered the remaining three, still for 300 pieces. At that Tarquinus paid.

Such was the legendary origin of the Sibylline Books of Roman history; they were said to be kept in a cave under the Capitol and consulted in time of public emergency by a committee of fifteen priests. The pronouncements of this committee sent a party of Romans to fetch home the meteorite sacred to the goddess Kybele from Phrygia, and urged on the Roman armies to overthrow Philip V of Macedon.

Accounts of the Sibylline Books' perishing in various conflagrations, or of being rescued therefrom, have come down, but the tales are too muddled to be straightened out now. These books were evidently not so secret as they were supposed to be, for private citizens had copies. Flavius Stilicho, the German mercenary general who controlled the West Roman Empire in the fifth century, is said to have burnt the Sibylline Books for good in 405. Fragments survive, however: oracular sayings in figurative language.

**B**ESESIDES the "authentic" Sibylline Books, there existed in the Roman Empire a mass of pseudo-prophetic literature in the form of the "Sibylline Oracles" forged by Christian and Jewish religionists as propaganda for their respective faiths. Five books of these oracles survive, a jumble of Judaic, orthodox Christian, and heretical Christian theology spiced with "prophecies" of such past events as the Punic Wars. The collection begins: "*O! Mortal, carnal, and vile men, how soon are you puffed up. Not considering that you must die...*" and goes on to prophecy: "*Rome shall govern Egypt, uniting it to the empire. Then the Great Kingdom of the Immortal King shall appear amongst men, and a holy King shall come who shall govern all the World for ages of time*

*to come; and then the inevitable power of the Latins shall thrice destroy Rome by a miserable fate; and all men shall be destroyed in their own houses, when the River of Fire shall descend from heaven."*

In those days such religious forgeries were common; for instance, Aristoboulos, a Hellenizing rabbi of Alexandria, forged poems in the names of Orpheus, Homer, and Hesiodos to prove that the Greeks got all their good ideas from Moses. The New Testament Epistles attributed to Peter, John, Jude, and James are considered by many modern scholars to be Alexandrine forgeries written long after the time of their putative authors. The Christian Fathers upheld such "pious" frauds", as they called them, on the ground that they helped to save the masses from damnation.

In arguing the subject of prophecy with Nostradamians and their ilk, you have to bear in mind whether an alleged forecast was actually first written *before* the event it is supposed to have prophesied. Most of the many anecdotes in the history of prophecy are worthless as evidence because they postdate the foreseen event. For instance, in the *Iliad*, the soothsayer Merops warns his two sons to stay out of the Trojan War, but, as is usually the case in such stories:

*Fate urged them on; the father warn'd in vain;  
They rush'd to fight, and perish'd on the plain...*

Even if the group of poets whom we lump together under the name "Homer" had been writing serious history (which they weren't) they still wrote centuries after the fulfillment of the supposed prophecy.

**T**HE AUTHOR of a pseudo-prophecy is sometimes, like Thomas Heywood, merely trying to sell a book; but more often he has some ulterior purpose in issuing prophecies part of which refer to the past and part to the future. As an example, if

I were an anti-coffee fanatic, I might forge prophecies in the name of the nineteenth-century American occultist Andrew Jackson Davis, in which I prophesied the events from Davis' time to, let us say, the year 2000. The prophecies from the supposed time of writing to the present year 1951 would simply describe known events; while those from 1951 on would foretell the nation's destruction as a result of the vile coffee-habit. Then I'd say: *Davis is obviously a true prophet, since he foresaw the World Wars and other events from his time to ours; therefore his predictions for the years after 1951 must be right too, and we'd better forbid coffee while there is yet time.*

Pseudo-prophetic works, like other occult pseudepigrapha (falsely attributed works) are often accompanied by accounts of their discovery under dramatic or uncanny circumstances. Thus the unsuccessful Irish playwright Richard Head, in composing his *Life & Death of Mother Shipton* (1684), which described this legendary prophetess as a daughter of the Devil, told how he had distilled wine to get pure water, wherewith he had wetted an ancient manuscript to bring out the writing, and had thus learned of the many miraculous incidents of Mother Shipton's life. (If you distill wine you get brandy, not pure water—but no matter.) It is like the alleged discovery of the *Emerald Tablet* (a collection of alchemical aphorisms by Alexander the Great in the tomb of Hermes near Hebron; the finding of the alchemical treatise *Concerning the Seven* in the tomb of the mythical King Kyranides at Troy; and the discovery of the medieval grimoire *The Key of Solomon* in an ivory casket.

The Arab editor of the medieval *Secret of Secrets* told an even better tale of receiving the book from a mysterious sage at the site of Esculapides' Oracle of the Sun, and a still more inventive editor claimed that the works of the alchemist "Basil Valentine" were found when lightning split open a pillar of Brother Basil's abbey,

whereupon the manuscripts fell out before the pillar miraculously closed up again. The medieval practice of asserting that a book was received under mysterious circumstances—in order to lend it a certain spurious authority—is an old custom that did not die out, as witness Mme. Blavatsky's *Secret Doctrine* and Joseph Smith's *Book of Mormon*.

THE EARLIEST known pseudo-prophecy, the *Prophecy of Neferrohu* from the Twelfth Dynasty of Egypt, tells how the sage Neferrohu appeared before King Sneferu of the Third Dynasty, who lived a thousand years previously, and recited a long forecast of the disasters that would befall Egypt before the rise of the glorious Twelfth Dynasty under Amenemhat I.

Medieval Europe produced many such works, such as the Merlinian prophecies of Nennius' *History of the Britons* and Geoffrey of Monmouth's *British History*. In each case the prophecies start out with a recognizable *Britons* and Geoffrey of Monmouth's account of British history from the supposed time of Merlin to the time of writing, and thereafter explore the future. A significant difference can be seen between the two sets of prophecies, however. Nennius' Merlin foretells the eventual reconquest of Britain by the Britons, for in Nennius' time (ninth or tenth century) the Britons were still holding out in the west of England, and their final comeback could still be imagined. But Geoffrey's Merlin sees their complete defeat, for in Geoffrey's time (twelfth century) the Saxons were obviously there to stay.

Another medieval example was St. Malachi's list of the popes. While Malachi was an Irish archbishop of the twelfth century, the prophecies attributed to him first saw the light of publication in 1595. The prophecy consists of 112 brief phrases, each identifying a pope by some characteristic, such as his place of origin or coat of arms.

The list begins: "1. *From the camp of the Tiber.* 2. *The foe expelled.* 3. *From the mountain's heights.*" The descriptions fit fairly well up to the time when the work appeared. Thereafter begins the familiar process of Procrusteanizing, or stretching and trimming the prophecy to fit the facts. Thus Pius VII appears as *aquila rapax*, "rapacious eagle", although this unhappy pontiff was kidnapped by Napoleon, who also seized the Papal territories. Interpreters try to circumvent this *gaffe* by applying the phrase to the pope's persecutor Napoleon. But if the descriptions can be applied, not only to the popes, but also to anybody with whom they had relations, any phrase can be made to fit any pope.

Another great pseudo-prophet, the Mother Shipton mentioned above, supposedly lived in Yorkshire 1488-1561. She is said to have been a large and singularly ugly woman, but pious and intelligent, and her maiden name is given as Ursula Southill. The oldest material about her appears in a pamphlet of 1641, describing a visit to her cottage of Lords Suffolk, Percy, and Darcy, to whom she uttered prophecies of their own fates and of the death of Cardinal Wolsey, as well as of assorted wars, murders, and executions. Subsequent Shiptonian expanded the legend, and each successive pamphleteer added to the current body of Shiptonian prophecy, as did Baker's *Mother Shipton and Nixon's Prophecies* (1797), from which most of the "traditional" story of her life is derived. (Robert Nixon was another English prophet of doubtful historicity.)

The most magnificent interpolation was made by Charles Hindley in 1862. Hindley, as he confessed in a letter to the editor of *Notes and Queries*, fabricated the celebrated fifty-seven lines which read, in part:

*Carriages without horses shall go,  
And accidents fill the world with  
woe...  
Around the world thoughts shall  
fly*

*In the twinkling of an eye...  
Through hills men shall ride  
And no horse or ass by their side,  
Under water men shall walk,  
Shall ride, shall sleep, and talk;  
In the air men shall be seen,  
In white, in black, and in green...  
The world then to an end shall  
come  
In Eighteen Hundred and Eighty  
One.*

This would have been a remarkable (though not necessarily supernatural) technological forecast had it been uttered by a sixteenth-century country-woman. But Hindley, living in the days of the railroad, the balloon, and the electric telegraph, required no prophetic powers but merely a talent for hoaxes. Even without his confession, there's reason to doubt that the passage was written in the sixteenth century; it rhymes "war" with "door"—a good enough rhyme in Hindley's time but not in Mother Shipton's when "war" rhymed with "far". Despite the patent spuriousness of these verses, modern prophecy-mongers continue to exploit them as evidence for the reality of prophetic powers; see, for instance, Forman's *Story of Prophecy in the life of Mankind* (1936).

ALTHOUGH the fabrication of pseudo-prophecies is rarer now than formerly, the art is not quite dead. In 1916 a French propagandist, Georges Stoffler, issued a pamphlet entitled *The Vision of the Maid of Hohenburg*, which ascribed to St. Odile the prophecy that: "The time

has come when there shall rise in the heart of Germany a terrible warmaker who will bring about the war of the world and whom belligerents will call Antichrist. He will be cursed by the mothers as, like Rachel, they weep for their children..." This war will rage until: "All the despoiled peoples who have believed in Him will recover what they have lost..."

The original Odile was an eighteenth-century Alsatian nun, who, according to her hagiography, was born blind and recovered her sight by a miracle, and who by prayer performed such feats as saving her father from Purgatory. Even if the woman existed, her legend says nothing of prophecy, nor is there any competent evidence that the "vision" existed before 1916. Still and all, it was a useful stick to beat Wilhelm II and, later, Adolf Hitler.

Pseudo-prophetic literature has declined steadily until it may now be considered an almost extinct art. Anybody who tried seriously to perpetrate an anti-coffee hoax by attributing a false prophecy to Andrew J. Davis, as I suggested earlier, would have a rough time with the publishers; even if he achieved publication, the work would be torn to pieces by a host of eagle-eyed critics familiar with Davis' authentic works and eager to pounce upon such fakery. So book reviewers, whenever they feel depressed over their trade, can at least congratulate themselves for probably being partly responsible as a profession for the abatement of one literary nuisance—the false prophet.

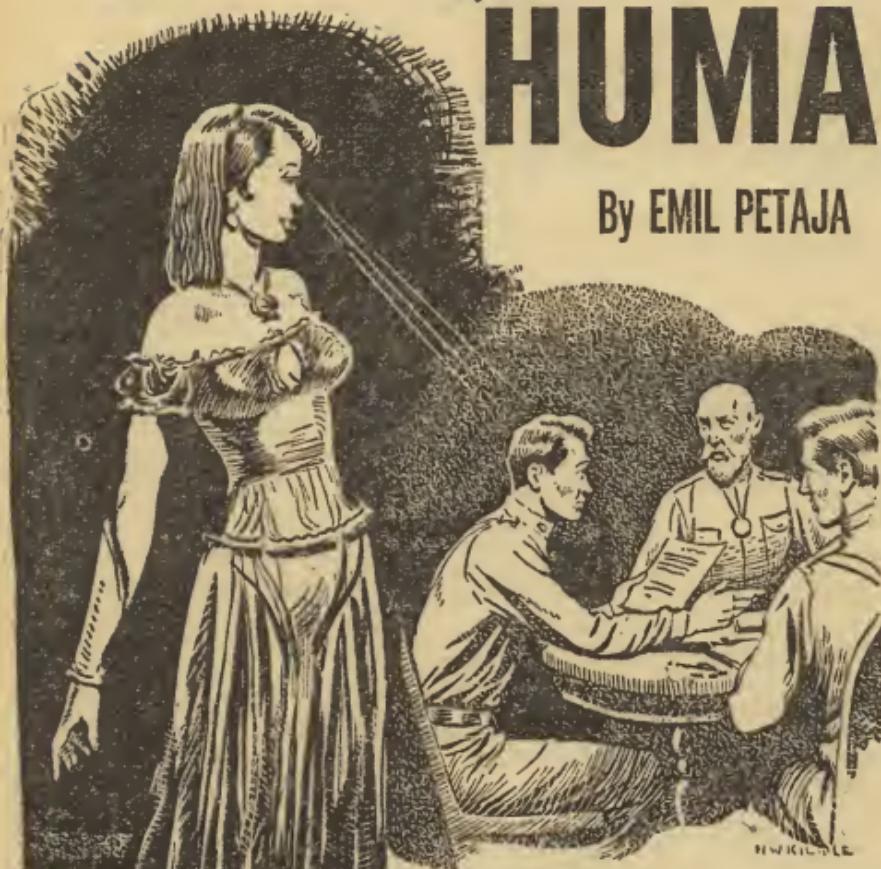
## THE RECKONING

A Report on the  
September issue—

1. GENESIS — Piper	2.68
2. IF I FORGET THEE, O EARTH — Clarke	4.08
3. ELIXIR — Blish	4.33
4. STAIRWAY TO THE STARS — Shaw	4.37
5. REGENERATION — Dye	4.56
6. THE TROUBADOUR — Sherman	4.62
7. THIS WORLD MUST DIE — Fyfe	4.72
8. MASK OF PEACE — James	5.75

# NOT QUITE HUMAN

By EMIL PETAJA



HWICLLE

Guy was completely a creature of Dorcas' slightest wish, now.

DORCAS OREN never allowed herself the luxury of day-dreaming. Her time was of infinite importance, her potential ability the subject of science-gossip now in the twenty-second century. The end products of her genius were known to the ends of the universe and as far as man had reached beyond it. And yet here she was at the rear

She was losing Guy, Dorcas found, and now that it was too late, she realized she wanted him for herself. But...there was a way whereby Guy would never be lost...only...

Machines have cut-off points, and, in this respect, they are completely reliable so long as the mechanism doesn't go out of order. Human beings have cut-off points, in certain respects, too—but you just can't depend upon any particular one in a given instance!

window of the top floor of Robot Research, gaping out over the rooftops with the blank wistfulness of a schoolgirl.

After a while her eyes found a target. A child and its nurse, on the playroof just below. It might be that some spark of yearning motherhood flared at sight of the little girl in the playsuit. Yet it was the nurse that gained her full attention in the end. The nurse had a kind face, a typical B1-47 face. Blue eyes that twinkled; buxom figure—but muscular enough to fulfill her destined duties. Pleasantly unpretty, and without the idiotic smile that had formerly stamped the servant robot.

The little girl was playing with a ball; the nurse was helping her play.

Dorcas was full of angry thoughts. That was why she was here at the window and not back in her laboratory exploiting the power in her mind, creating even more wonderful creatures than this nurse B1-47. Dorcas Oren was a mother, too; she need not envy this child's mother. She was the mind-mother of billions. Her genius had done much to intensify the subtlety of the subtle science of producing not-quite-human progeny.

*Guy is a fool. A fool...*

As she watched the child and nurse playing, some of her exasperation wilted; she, Dorcas Oren, had created this creature. She had made it possible for a human nurse to expend her life in other more important tasks than minding this child.

"No, no—Nanny!" the child cried, in a temper. "Throw the ball *there!*"

The nurse smiled and obeyed.

Then, when the child irrationally changed her mind, the nurse fell in with her whim without a murmur.

But there was more to it; the robot nurse did something no human nurse

could have done. She anticipated the child's wishes, obeying them even before the auditory command could reach her receptors. The little girl only wished for a cookie from the table at the far end of the playroom and the nurse amiably trotted over and fetched it, but side-glancing as she did so, to reassure herself that the child came to no harm. The nurse, of course, was conditioned to consider this child's safety the most important thing in her mechanical life.

But it was the wish-fulfillment device which Dorcas had contributed. Nor was it anything alarmingly mysterious. It was a simple thing, basically; this robot's mind was tuned to the child's. The robot's mind reacted like a mirror in that when the impulse told it to, the robot's sponge of a mind absorbed the contents of the little girl's. The child's thoughts were transferred to this mirror-mind, and then the mechanical muscles hastened to obey the commands in it.

**M**IND-REFLECTOR robots could be tuned in to any human mind, and readjusted as desired. They made perfect servants. Magic servants. A housewife, on waking up in the morning, had only to *wish* for her daily chores to be done, then roll over and sleep some more. By the time she reawakened the magic servants had cleaned the house, cooked, laundered, everything. Dorcas' robots had revolutionized industry. Intricate instructions to robot workers had only to be sketched out in the mind and instantaneously they were imprinted on a hundred robot-minds in the minutest detail. Of course there were limits....

*If Guy Trellis had only....*

Below, the child tossed the ball too far—beyond the safe zone. There was a heavy wire netting to protect the

two from the roof's edge, but by some curious chance the ball squeezed its way through one of the holes and bounced gayly on the danger side until it struck the low roof-lip, a scant foot from disaster.

The child scrambled to the wire netting, stared, then called to her nurse imperatively. The nurse produced another ball, like magic. The child looked at it and screamed. She didn't want the new ball; she wanted the old one. She yelled and gestured for the nurse to put her over the netting. The nurse approached, doubtfully. The child screamed at her in a rage, and made efforts to climb the netting herself.

"Put me over! Put me over!" she cried.

Finally, hesitantly, the nurse took hold of her and lifted...

A cough behind her made Dorcas turn; it was Guy. His handsome face was wearing the fatuous glow she had come to associate with his afternoons off. That sheepish grin used to have Dorcas herself as its target. Not so these days.

Dorcas felt her lean body stiffen. Her grey eyes went dark but nothing else about her even, slightly narrow features, betrayed her. "Well?" she asked tartly.

"Thanks, boss-lady. Thanks for letting me have my two hours off this afternoon." He grinned gratefully.

"You were entitled to it," she said; "I granted no special favors."

"You could have said no."

"Why should I?"

"We're damn busy these days. The Interplanet Council sent another checker-upper around this morning; they want that new formula bad. The new mind-reflector robots might prevent another space war. Nobody knows what the Gannymen are up to, but it is nothing good. You are the all-important cog in the cosmic-wheel these days, boss-lady. If our new robots can make a landing on Ganymede and then by transferring the Gannymen's thoughts to their minds—"

"It is not necessary for you to brief me on interplanetary conditions, Mr. Trellis," Dorcas interrupted.

"Hardly." Guy ran his fingers nervously through his brown locks. "Not when the Council sends their top man trundling down here to beg you to hurry." He bowed with ironic gravity.

DORCAS brushed past him down the corridor; he hurried alongside. She shuddered inside with emotion and she hated herself for it. She wanted to deny it, to cast it to the winds. Perhaps that was why she had lingered by that open window. But she did not, could not. After five years of side-by-side association Guy Trellis now took her for granted. Oh, he stood in awe of her, and that used to amuse her; but now that she couldn't have it, she wanted more.

"You used to call me Guy," he said reproachfully.

"That was B. L." There was bitterness in her quip.

"B. L.?"

"Before Lillian; she might not like it."

"Why shouldn't she? I mean, you're my boss-lady, aren't you?"

"Will you please stop using that imbecilic title?"

"Okay, okay."

"Anyway, since I presume you will be marrying Lillian at any moment, it might be best if you were to have your duties at RR transferred to another division. I will find another assistant. Mark Gill, perhaps."

"Mark Gill!" Guy stared at her, stricken. "What on earth has my marrying Lillian to do with my work? Sure, I'm marrying her; so what?"

"Our work is too intimate," Dorcas said, with a touch of old-fashioned archness. "Too much night-work together. People gossip; Lillian is too—too feminine to take it."

"That's nonsense! Lillian can take it; why, she thinks you're wonderful!"

"I'll bet she does."

Guy put his masculine charm to work. He went into an impassioned

appeal, citing their five years in close association, how he had learned to interpret every trick of her mind and how long it would take anyone else to reach this point of *en rapport*. As for Mark Gill, he spat upon Mark Gill. Then he overworked the theme of how much Lillian thought of Dorcas, how she idealized her, stood in rapt awe when her name was mentioned. To reinforce this point he crowed about Lillian. How wonderful she was, how understanding, how sweet.

But he forgot one thing.

He forgot Dorcas was, after all, a woman.

"Sorry, Guy." She smiled, then became to all appearances her brisk self. "As you said a moment ago this reflector-robot is of vast importance. Too important to allow any petty squabbles to interfere. I can't allow myself to worry about what Lillian would think if I asked you to stay until midnight three nights in a row. It might easily happen, you know. No, it will have to be Mark, I'm afraid." She turned away quickly, then looked back over her shoulder. The hurt in Guy's brown eyes made her shiver a little. It was as if he couldn't bear working in some other division, mechanics perhaps. As if his old feeling for her wasn't completely dead, after all. But she knew it was.

"By the way, Guy, congratulations."

"Eh?"

"On your wedding. Lillian is—ah—just what you said. Sweet. Sweet as sugar."

•

**S**HE LET the door of her inner sanctum slam behind her. But that was all she allowed herself. No tantrums; no tiny hands pressed against temples while the tears flowed like wine. She went frigidly back to her work. It was there, inside of her, but nothing showed.

When Guy first came to work for RR, even before she selected him as

her first assistant, he was smitten. No doubt about it. But Dorcas' iron credo allowed for no such foolishness as love; she was busy, important, married to science. She was mildly amused at the calf glances that escaped him, but she remained aloof, unaware of elementary biology.

Then Lillian came into the picture. Sweet, blonde, adoring Lillian. Dorcas found herself picking at Guy, criticizing his work. Then, analysing her motives, she began to inescapably realize why. Still she clung to the fantasy that Guy's preoccupation with Lillian was disturbing his work, slowing him up. Endangering fulfillment of their monumental task. Such a concept wasn't true. Guy's happiness, particularly after five years of frustration, spurred him on to the point where some of his ideas superseded her own.

Dorcas refused to accept this; she reasoned thus: Guy had loved her before. Inspired by her, he had done his best work. He no longer loved her, but a wheat-headed snip without enough brains to mention, who looked up at him adoringly. Lillian did have a pretty face and was not ill-favored in other departments. But how important was this compared to the fate of planets?

Dorcas twisted a key in a cabinet so secret that even Guy, her first assistant, was ignorant of its contents. Then she stopped; she froze. So, in this moment she was admitting to herself that she loved Guy. Now that he didn't love her any more, she loved him.

That was bad stuff.

Even if his work didn't suffer, hers would. Her concentration was already impaired; here she had wasted two hours mooning at the back window, a thing that had not happened in years. It was awful. It was intolerable!

*Something had to be done and quickly.*

**H**ER HANDS, part of Dorcas' mind, went to work on her. But the rest of her mind remained

clouded with vexation with Guy and the elementary facts of biology. What to do?

Ganymede. The sudden threat. They had always posed a problem, but only recently sudden strides in scientific warfare made it evident to the Council that this problem was growing deadly serious. And there seemed no way of reaching them. Gannyman ideologies and concepts baffled the civilized universe—concepts that made the ancient American-Russian difficulties seem like a Sunday-School picnic. Not two nationalities with ancient prejudices and mores, but two planets whose inhabitants had utterly different bodies, different emotions, different minds.

Operation Robot Research was to create Gannyman robots with reflector-minds—not humanoid robots but Gannymanoid robots. Robots capable of transferring Gannyman ideas and concepts to their own. Hence these Gannyman robots must be capable of retrieving and retaining in detail all the complex thoughts and desires buried deep in Gannyman's minds.

These robots would be secretly planted on various parts of Ganymede, with specific instructions as to how to behave. Should they be destroyed, others would be sent. Some would "die", of course, but it was hoped that at least a few would return to Earth when their instructions had been completed. These robots, imbued with Gannyman's thoughts and desires, would be allowed to proceed under the impetus of these thoughts and desires—but under careful surveillance. When their Gannyman desires began to endanger Earth, then they would be stopped. This whole intricate plan was fraught with danger, of course, but there seemed to be no other way of "getting with" Gannyman's intentions. Their iron curtain was air-tight.

Dorcas' part in the plan was next to impossible. She was supplied with every scrap of scientific data regarding the Gannymen available; she was provided with biological specimens;

she was given free rein, an unlimited expense budget. The only limit was—time.

All of this was extremely secret. The Gannymen were highly intelligent, quite capable of having sent their own spies to Earth or even of hiring Terrans to spy for them. But Dorcas was not to concern herself with such problems; these were out of her scope. She was to keep her energies devoutly to the core of the problem—creating a Gannymanoid reflector-mind.

*Guy? Or Lillian?*

Her personal problem resolved itself by degrees into a question as simple as that. Something had to be done; one of them must go. Dorcas' all-important task must not be interrupted by anything or anyone—or by personal emotion. So—one of them must go...

But which one?

Lillian seemed the logical one. It would be child's play to eradicate Lillian. Dorcas could devise some small feminine party. She had chemicals by the dozens at her disposal, any of which would destroy Lillian with neatness and dispatch. Or a lethal germ could be administered. Lillian would die of natural causes.

For that matter, Guy could be disposed of as easily.

But there were arguments in disfavor of both. If she killed Lillian, Guy would be upset, his work would suffer. And if Dorcas killed Guy—

Yes. *She* would be upset. Horribly upset. For Dorcas did love him, she admitted it to herself at last. She couldn't destroy the man she loved and then go calmly on with her work. She could sacrifice herself, but not him.

She stared down into the microscope. This substance in the slide was the essence of her most secret secret. Even Guy knew nothing of *this*.

*Even Guy...*

She drew a deep breath. Then quickly she stepped back into the other larger laboratory and called Guy in.

"THEN YOU'RE sure, Guy? You are positive that the success of our research means more to you than your own life?"

Guy looked at her and nodded.

"And—Lillian?"

"I'll take the chance; you said this test was essential. But I still don't understand what good it will do to try it out on a Terran. Hadn't you better ask the Council to get you a Gannyman prisoner or—"

Dorcas thought fast. Now that she had made up her mind, her instinct for perfection placed glib lies on her tongue. "Listen, Guy. You know that while the robots are basically Gannyman they must also be capable of obeying their original Council instructions, otherwise they might stay there and never come back? You know that, don't you?"

He looked at her and the blind faith in his eyes made her look away and almost drop the hypodermic needle she held. "Right. I get it. And if anything happens, tell Lillian that I—"

"Nothing's going to happen," Dorcas broke in. "That is, I don't think so. You may have headaches or—something. But the chances are way up. No, Guy, I think I'll have my first assistant around for a long, long time."

He glowed at that. "Okay, boss-lady!" He held out his bare arm and grinned. "Go ahead, shoot the works!"

The whole thing had its basis in that most secret research, which was an offshoot of the reflector-mind. If a mechanical mind could be devised which would receive instructions from a human (or other intelligent) mind, and then unquestioningly fulfill these instructions—why not a human mind?

The Council had an ace up its sleeve. Should their initial plan—the Gannyman reflector-mind proxy idea—fail, they would reluctantly put into effect another plan. For some time now Dorcas had been secretly working on a formula which would in effect transform a natural mind into a reflector-mind. This formula would be somehow administered to the entire

satellite of Ganymede and the Ganny-men would be incapable of following through any sinister plan they had been cooking up. They would be subject to absolute control, inasmuch as their minds would mirror the thoughts and desires of the Council.

Why Dorcas' formula was so secret is understandable; the pitfalls are all too apparent. In the hands of a dictator-minded intelligence it could soon turn the universe into a universe of slaves.

Even the Council's top-man did not know that Dorcas had perfected her formula, and had now tested it.

On Guy Trellis....

•

THE CHANGE was undetectable, even to Guy. His behavior was much the same as always. While he seemed to remain an individual, with his own mental activities, that part of his mind which controlled his own will-power was subject to Dorcas' desires. To all intents and purposes nothing had happened to him—nothing except that whenever Dorcas exerted the slightest pressure his desire became hers and he did what she wished without the possibility of disobedience.

Dorcas told no one, although she did leave certain notes and instructions for the Council, should anything happen to her.

As for Lillian, she faded out of the picture as surely as if she had been rubbed over with bleaching solution. Of course Dorcas was subtle. At first Guy found himself unaccountably bored when he was with Lillian, restless. As the weeks sped by this boredom deepened into active dislike. Finally he could not bear her; he wanted to be back at RR with Dorcas. Dorcas was part of him, *all* of him.

They were married. It was actually ideal; the little aggravating quarrels that make up an inevitable portion of any married couple's lives simply didn't exist for them. Dorcas always had her way. Guy never disagreed

with anything she wanted, big or small. Never, never. She didn't even have to mention her desires aloud. Her wishes were Guy's. Always, always.

Perhaps it was this "always-always" monotony which eventually began to tear at her nerves. Guy's lack of individuality. This, closely tied in with Dorcas' conscience. Dorcas was not wicked; she had done what she thought right for the civilized universe. But now as the first flush of absolute necessary began to fade she began to wonder if she had done right after all. Was it right to have done what she did—to have repossessed a man's mind and soul? Or was it just womanly weakness?

For he was hers. Completely. But it was not the moon-june song lyric thing. It was cold science; he was hers by scientific formula.

•

THE GANNYMAN reflector-mind was finished. The mechanical divisions of RR had provided bodies for them, and the robots were even now speeding on their secret missions.

Those who were in the know waited—and prayed.

Dorcas was one of them, and Guy joined her because it was impossible for him not to. Dorcas told herself again and again that what she had done was vital. It *had* to be done if the universe was not to be plunged into chaotic war. And if Guy's mind reflected any of these thoughts, he agreed with her. What else?

But Dorcas had to live with her creation and it became hell; she had dreadful nightmares. The strain of those long months of concentrated effort, coupled with the pangs she inflicted on herself every time she looked at Guy, began to tell. One night she woke up screaming. Guy bolted up, inquiringly, but before he could ask her what was wrong her angry desire that he should go back to sleep sent

him plummeting against his pillow and snoring.

Her great work was over. There was nothing to press her down, to keep her mind fully occupied night and day. The cause for what she had done to Guy was removed, but what she had done could not be undone. A human mind, unlike a machine mind, cannot be tinkered with and readjusted to suit a whim; Dorcas knew the results would probably be disastrous if she tried.

But she did try. She worked furiously on an antidote for her formula, and he helped her without knowing. But in the end she had to give up; it was hopeless.

Guy's constant obedience had long since ceased to be a thing to be desired. It had become an annoyance, and now it was a horror that set her nerves to screaming. She tried to prevent herself from requiring anything of him. Sometimes she pretended he didn't exist, but it was no good. Their minds were so in tune that any small thing she inadvertently wanted was provided. Guy was there at her side, eagerly adoring. Her emotions tumbled, her nerves shrieked "murderess" at her. "Murderess of personalities!"

Finally she sent him away—far away.

It was better for a time, but then she began to fret. Was he all right? Would he be able to take proper care of himself? Would he brood? What if somebody should get a hint of the truth, and the Council were to find out? Could she trust him—what he might do away from her?

She made inquiry. It was as she might have expected; away from her Guy behaved like a dead thing. He was miserable without her, and he would do nothing but sit and stare blankly, like an inactive servant robot awaiting the call to duty.

She scribbled a hasty note for him to come back.

•

IT WAS some days later. She was standing at the open back window, looking down at the playroom below.

"Dorcus Oren," a respectful voice murmured.

She turned. It was Abel, the Council's top man. The gleam in his usually impassive features indicated something had happened. To Guy? For a moment her heart stopped. Then Abel smiled and she knew the news was good.

"What is it?"

"We've won, Dorcas! We've won!"

In her joy everything else was forgotten. The universe was safe from war!

"Your reflector-minds did it," he murmured reverently. "Only two returned, but both of them were successful in their missions. One was to have sought out a political leader; the other was geared to find a Ganymede economist. The former, reflecting a war-leader's mind, told us exactly how they intend to wage this war of theirs. The actual devices they intend to use—and when. Of course this will enable us to prepare an overwhelming resistance. We'll stop them cold at the very outset should that be necessary; hardly a life will be lost, perhaps none!"

"And—?"

"The other gave us even more important news. The economist robot revealed by his actions *why* the Gannymen want war. In truth they don't, being sensible people, but there are certain resources which they require and which the Council has forbidden them. They are suspicious, afraid that this lack will weaken them and that they will be exploited. Their requests were turned down by the Council for security reasons, but now that we know what they intend to use these minerals for, our own suspicions are gone. Right now the Council is preparing a document which will reassure them. In all likelihood this war may end before it even starts, thanks to you, Dorcas Oren."

DORCAS flushed, but there was something that was cold and unresponsive to happiness, deep inside her. She didn't move, or speak.

"Well," Abel smiled. "Have you nothing to say?"

"I—I'm happy, of course. Very happy."

Abel nodded. "By the way, that other matter."

"Which other matter?"

"The secret experiment. I know nothing of it, of course; merely that there is one afoot. But now it is the Council's decree that you shall cease work on it at once. You shall destroy all your records and evidences of its existence—erase it from your own mind as well. The Council has had psychologists probing into its possible value, and their report is negative. They agree it has nothing to offer that is not harmful; you are to destroy it and forget that you have ever worked on it."

Dorcas shut her eyes and leaned hard against the wide window railing.

"You will do as they request?" Abel prompted.

"Of course."

Abel bowed, thanked her again, and withdrew. Dorcas clung to the railing and turned blurred eyes downward. Down on the sixtieth-story playroom that same little girl was chattering and shrieking as she played ball with her B1-47 nurse. The nurse would trot about the enclosure obediently, smiling cheerfully at everything the child said.

"No! Not there—*here*! You silly old fool! Silly old fool!"

Inasmuch as the nurse had done exactly as the child commanded, the girl was in effect calling herself names. The nurse's mind was a reflection of hers. The child had changed her mind, but too late to revise the nurse's mechanical actions. Split-seconds too late.

Dorcas leaned against the open window railing and wept.

What had she done? What terrible thing?

The Council decreed: destroy all evidences of the secret experiment. Forget it! But how could she forget it when the man she loved was forever doomed by it, doomed to obey her slightest whim as long as they both lived.

Every time she looked into his eyes that utter obedience was there to accuse her. *"Murderess! Murderess of personalities!"* And it would always be there until—

Until she was dead.

"I wish I was!" Dorcas cried in a frenzy. "I wish I was dead now!"

**T**HREE WAS a shadow behind her, then a figure darted forward and seized her. Dorcas saw him in a vague blur as she went over the window ledge. Guy. Returned. But there was no time to change her mind....

"Forgive!" she tried to say.

And while the word itself was lost in the wind that streamed past her dropping body, the thought clung. Dor-

cas plummeted almost a hundred stories to oblivion, and above her Guy looked down, uncertain, questioning, adoring. She had wanted it. She *had*; the desire had been strong, very strong.

For only a moment Guy clung there in an agony of almost-knowing, then suddenly his eyes burned out. A shadow crossed over his face. He stood there unmoving, an empty husk.

It happened again.

The rubber ball squeezed through the safety fence and the child on the playroom below screamed for her nurse to lift her over the fence so that she could retrieve it. The nurse, obedient to the restrictions built into her mechanical brain and body, lifted her. But she lifted her *away* from the fence, not over it. And she allowed the child to cry and scream until the new ball she produced captured her interest.

The nurse, luckily, had had a stopping point built into her. Unlike Guy Trellis, she was not quite human.

•

## FROM THE BOOKSHELF

*Publishers are requested not to send fantasy selections to this department, as the volume of science-fiction books fully occupies the reviewer's time and space.*

**A**S LITTLE as five years ago, before the supply of science-fiction novels in book form became tremendous as it is today, there would not have been too much hesitation on my part in recommending Clifford D. Simak's "Cosmic Engineers", as an enjoyable story. It is still just that—an enjoyable story, reasonably well written, and Gnome Press's decision to bring it out might not have been too bad a one, back in 1946.

But the situation now is much, much different. The number of science-fiction novels, collections of short stories, etc., is staggering—particularly when one considers how few were available not so long ago. I doubt that very many science-fiction readers—even those with funds to spread around, and with the intention of building up a large library—will want everything that appears, even everything above mediocrity. And I also doubt that any science-fiction author, so far, has made such an achievement in this form of writing as to merit anyone's collecting the complete works, to follow the development from the early, through the middle, to the current offerings, in the way a music-lover will study Haydn, Beethoven, Schubert, etc. (I expect that Bradbury and Heinlein fans will dis-

pute this.)

It seems to me, then, that there isn't much point in buying a novel that one is not very likely to want to re-read—unless one has a special reason, outside the general range of reader interest—when there are so many novels which can stand re-reading.

For \$1.50 less than you would pay for "Cosmic Engineers", you can obtain the Grosset & Dunlap edition of Fritz Leiber's superb, "Gather Darkness". This was a splendid buy in the earlier, more expensive edition; for one dollar, it's the bargain of the season!

Speaking of Robert A. Heinlein, Signet Books has brought out his novel, "Sixth Column", under the title of "The Day After Tomorrow". It's a fascinating variation on a well-known theme: how to unconquer a completely conquered America. Heinlein's solution—a phoney religion, employing super-scientific gimmicks—makes for plenty of suspense. It's good entertainment, and doesn't pretend to be much more. Again, I doubt the re-reading value—but, for 25¢, this is not an important consideration. I'd call it quite a fair deal.



# the AWAKENING

by

**ARTHUR C. CLARKE**

Marlan's quest was a strange one, and he knew he would not long survive its fulfillment.

MARLAN was bored, with the ultimate boredom that only Utopia can supply. He stood before the great window and stared down at the scudding clouds, driven by the gale that was racing past the foothills of the city. Sometimes, through a rent in the billowing white blanket, he could catch a glimpse of lakes and forests and the winding ribbon of the river that flowed through the empty land he now so seldom troubled to visit. Twenty miles away to the west, rainbow-hued in the sunlight, the upper peaks of the artificial mountain that was City Nine floated above the clouds, a dream island adrift in the cold wastes of the stratosphere. Marlan wondered how many of its inhabitants were staring listlessly across at him, equally dissatisfied with life. There was, of course, one way of escape, and many had chosen it. But that was so obvious, and Marlan avoided the obvious above all things. Besides, while there was still a chance that life might yet hold some new experience, he would not pass through the door that led to oblivion.

Out of the mists that lay beneath him, something bright and flaming burst through the clouds and dwindled swiftly towards the deep blue of the zenith. With lack-lustre eyes, Marlan watched the ascending ship: once—how long ago!—the sight would have lifted his heart: once he too had

gone on such journeys, following the road along which Man had found his greatest adventures. But now on the twelve planets and the fifty moons there was nothing one could not find on Earth. Perhaps, if only the stars could have been reached, humanity might have avoided the cul-de-sac in which it was now trapped: there would still have remained endless vistas of exploration and discovery. But the spirit of mankind had quailed before the awful immensities of interstellar space. Man had reached the planets while he was still young, but the stars had remained forever beyond his grasp.

And yet—Marlan stiffened at the thought and stared along the twisting vapour-trail that marked the path of the departed ship—if Space had defeated him, there was still another conquest to be attempted. For a long time he stood in silent thought, while, far beneath, the storm's ragged hem slowly unveiled the buttresses and ramparts of the city, and below those, the forgotten fields and forests which had once been Man's only home.

The idea appealed to Sandrak's scientific ingenuity: it presented him with interesting technical problems which would keep him occupied for a year or two. That would give Marlan ample time to wind up his affairs—or, if necessary, to change his mind.

If Marlan felt any last-minute hesitations, he was too proud to show it

When all else is boredom, some men  
will still want to know...

as he said good-bye to his friends. They had watched his plans with morbid curiosity, convinced that he was indulging in some unusually elaborate form of euthanasia. As the door of the little spaceship closed behind Marlan, they walked slowly away to resume the pattern of their aimless lives: and Rowena wept, but not for long.

While Marlan made his final preparations, the ship climbed on its automatic course, gaining speed until the Earth was a silver crescent, then a fading star lost against the greater glory of the sun. Rising upwards from the plane in which the planets move, the ship drove steadfastly towards the stars until the sun itself had become no more than a blazing point of light. Then Marlan checked his outward speed, swinging the ship round into an orbit that made it the outermost of all the sun's children. Nothing would ever disturb it here: it would circle the sun for eternity, unless by some inconceivable chance it was captured by a wandering comet.

For the last time Marlan checked the instruments that Sandrak had built. Then he went to the innermost chamber and sealed the heavy metal door. When he opened it again, it would be to learn the secret of human destiny.

His mind was empty of all emotion as he lay on the thickly padded couch and waited for the machines to do their duty. He never heard the first whisper of gas through the vents: but consciousness went out like an ebbing tide.

Presently the air crept hissing from the little chamber, and its store of heat drained outwards into the ultimate cold of space. Change and decay could never enter here: Marlan lay in a tomb that would outlast the Earth itself. Yet it was more than a tomb, for the machines it carried were biding their time: and every hundred years a circuit opened and closed, counting the centuries.

**S**O MARLAN slept, in the cold twilight beyond Pluto. He knew nothing of the life that ebbed and flowed upon Earth and its sister planets while the centuries lengthened into millenia, and millenia into aeons. On the world that had once been Marlan's home, the mountains crumbled and were swept into the sea: the ice crawled down from the Poles as it had done so many times before and would do many times again. On the ocean beds the mountains of the future were built layer by layer from the falling silt, and presently rose into the light of day, and in a little while followed the forgotten Alps and Himalayas to their graves.

The sun had changed very little, all things considered, when the patient mechanisms of Marlan's ship reawakened from their long sleep. The air hissed back into the chamber, the temperature slowly climbed from the verge of absolute zero to a level at which life might start again. Gently, the handling machines began the delicate series of tasks which should revitalise their master.

Yet he did not stir. During the long ages that had passed since Marlan began his sleep, something had failed among the circuits that should have awakened him. Indeed, the marvel was that so much had functioned correctly; for Marlan still eluded Death, though his servants would never recall him from his slumbers.

And now the wonderful ship remembered the commands it had been given so long ago. For a little while as its multitudinous mechanisms slowly warmed to life, it floated inert with the feeble sunlight glinting on its walls. Then, ever more swiftly, it began to retrace the path along which it had travelled when the world was young. It did not check its speed until it was once more among the inner planets, its metal hull warming beneath the rays of the ancient, unwearying sun. Here it began its search, in the temperate zone where the Earth had once circled: and here

it presently found a planet it did not recognize.

The size was correct, but all else was wrong. Where were the seas that once had been Earth's greatest glory? Not even their empty beds were left: the dust of vanished continents had clogged them long ago. And where, above all, was the Moon? Somewhere in the forgotten past it had crept earthwards and met its doom, for the planet was now girdled, as once only Saturn had been, by a vast, thin halo of circling dust.

**F**OR A WHILE the robot controls searched through their electronic memories as the ship considered the situation. Then it made its decision: if a machine could have shrugged its shoulders, it would have done so. Choosing a landing place at random, it fell gently down through the thin air and came to rest on a flat plain of eroded sandstone. It had brought Marlan home: there was nothing more that it could do. If there was still life on the Earth, sooner or later it would find him.

And here, indeed, those who were now masters of Earth presently came upon Marlan's ship. Their memories were long, and the tarnished metal ovoid lying upon the sandstone was not wholly strange to them. They conferred among each other with as much excitement as their natures allowed and, using their own strange tools, began to break through the stubborn walls until they reached the chamber where Marlan slept.

In their way, they were very wise for they could understand the purpose of Marlan's machines and could tell where they had failed in their duty. In a little while the scientists had made what repairs were necessary, though they were none too hopeful of success. The best that they could expect was that Marlan's mind might be brought, if only for a little while, back to the borders of consciousness before Time exacted its long-deferred revenge.

The light came creeping back into

Marlan's brain with the slowness of a winter dawn. For ages he lay on the frontiers of self-awareness, knowing that he existed but not knowing who he was or whence he had come. Then fragments of memory returned, and fitted one by one into the intricate jig-saw of personality, until at last Marlan knew that he was—Marlan. Despite his weakness, the knowledge of success brought him a deep and burning sense of satisfaction. The curiosity that had driven him down the ages when his fellows had chosen the blissful sleep of euthanasia would soon be rewarded: he would know what manner of men had inherited the earth.

Strength returned. He opened his eyes. The light was gentle, and did not dazzle him: but for a moment all was blurred and misty. Then he saw figures looming dimly above him, and was filled with a sense of dreamlike wonder, for he remembered he should have been alone on his return to life, with only his machines to tend him.

And now the scene came swiftly into focus, and staring back at him, showing neither enmity nor friendship, neither excitement nor indifference, were the fathomless eyes of the Watchers. The thin, grotesquely articulated figures stood around him in a close-packed circle, looking down at him across a gulf which neither his mind nor theirs could ever span.

Other men would have felt terror, but Marlan only smiled, a little sadly, as he closed his eyes forever. His questing spirit had reached its goal: he had no more riddles to ask of Time. For in the last moment of his life, as he saw those waiting round him, he knew that the ancient war between Man and insect had long ago been ended: and that Man was not the victor.

Notice: the winner of an original illustration, for the best-received letter in our September issue, is Thomas Calvin Beck.

# Down to Earth

1. Future

Columbia Publications  
241 Church St  
N.Y.C.



This department is for you readers, where you can discuss science and science fictional subjects in general, and your opinions of *Future* in particular. We will pay two dollars for each letter published, regardless of length.

Dear Bob:

Sprague de Camp's "The So-Called Fourth Dimension", in your September issue, struck me as a fine job for the most part. It's a difficult subject to write about on a popular level, or even on a middling technical one, without over-simplifying to the point of distortion, and I think Sprague's piece is freer of that kind of thing than any other I've ever seen on the same subject.

Having said this, I'll have to add that at one point in the article Sprague has oversimplified the material. He is at some pains to make it clear that Time is not a fourth "spatial" dimension, and though he doesn't specify, it's clear that he means that Time is not so regarded in relativity. He then goes on to say: "If you think that you can erect four spatial dimensions, all at right angles to each other, try it with four pipe-cleaners."

The impressions left by this section of Sprague's article (beginning with the mention of Lagrange and d'Alembert, ending with the mention of Lobachevski, Riemann and Einstein) is quite false to the facts, as far as I can see. The fact that it is impossible for you or Sprague or me to erect four mutual perpendiculars with pipe-cleaners is irrelevant; and it is also confusing, because actually relativistic geometry is based on four mutual perpendiculars—it couldn't get along without them.

Sprague hedges this question by talking about spatial dimensions; he is on safe ground there because, of course, there are only three of those. But the moment he introduces the question of Time as a fourth dimension into the argument, space neces-

sarily must go out the window. In a four-dimensional metrical continuum, there is no such thing as an independently-existing space, or an independently-existing time; they coalesce into a single medium, called (obviously) space-time. Now the metrics of space-time are four-dimensional, and one of these dimensions (it makes no difference which number you give it) is duration; and this dimension exists as a definite geometrical direction, at right angles to the other three. Sprague's inability to point a pipe-cleaner in this particular direction is no argument against its existence; he might just as well say that atoms don't exist because he, and everyone else, is unable to see them with a reading glass.

Further evidence of confusion shows up in this statement: "As for the non-Euclidean geometry of Lobachevski and Riemann, and Professor Einstein's curvature of space, these are quite separate problems, despite the fact that they are sometimes confused with the idea of four or more dimensions." But no "confusion" exists. Professor Einstein maintains that space-time necessarily becomes curved in the presence of matter or an electromagnetic field—in fact, he insists that there never would have been any general theory of relativity at all had Minkowski never discovered four-dimensional space-time. As for Lobachevski's spherical space and Riemann's pseudo-spherical one, it's true that they don't in themselves invoke the necessity of four dimensions; when you observe, however, that, in the physical universe we are exploring, these geometries don't seem to manifest themselves except as a result

[Turn To Page 88].



# 144 pages! The Handbook for Ambitious Engineers

"ENGINEERING OPPORTUNITIES" is a book you must have . . . a book that can make this *your* big year. Compiled by experts—packed with interesting, practical, and up-to-date information to help put you in line for speedy promotion, higher pay (and all that goes with it) as well as the kind of job you've always wanted—this valuable guide to success describes the easiest and quickest way to pass A.M.I.Mech.E., A.M.I.C.E., A.M.S.E., A.M.Brit.I.R.E., City & Guilds and most other major technical Examinations, outlines hundreds of pay-winning Home Study Courses in *ALL* branches of Mechanical, Electrical, Civil, Automobile, Aeronautical, Radio, Television and Production Engineering, Government Employment, Management, Building, Draughtsmanship, Timber Technology, Plastics, General Certificate of Education, etc., and explains how we have already brought Success to *thousands* of B.I.E.T. Students all over the world.

## We Definitely Guarantee "NO PASS—NO FEE"

If you are earning less than £14 a week you cannot afford to miss reading "ENGINEERING OPPORTUNITIES." This remarkable book tells you everything you want to know about your career . . . and your future. Don't let today's opportunity slip through your fingers. Send for your copy now, **TODAY—FREE**, and without obligation.



### WHAT THIS BOOK WILL TELL YOU

- ★ HOW to get a better paid, more interesting and enjoyable job.
- ★ HOW to qualify for rapid promotion . . . 10 years progress in one year.
- ★ HOW to put some valuable letters after your name and become a "key-man" . . . quickly and easily.
- ★ HOW to benefit from our free Advisory and Employment Depts.
- ★ HOW to make your future a prosperous one and leave the ranks of the poorly paid far ever.
- ★ WHERE today's real opportunities are . . . and HOW you can take advantage of the chances you are now missing.
- ★ HOW, irrespective of your age, education, or experience, YOU can succeed in any branch of Engineering that appeals to you.

144 PAGES OF EXPERT  
CAREER-GUIDANCE

### BRITISH INSTITUTE OF ENGINEERING TECHNOLOGY

845 Shakespeare House,  
17-19 Stratford Place, London, W.I.  
Callers Welcomed. MAYfair 0812.

THE BIET IS THE LEADING INSTITUTE OF ITS KIND IN THE WORLD

of space-time curvatures, it would seem to me that they are anything but "quite separate problems." The fact seems to be that without 4-dimensional space-time these two geometries would have remained nothing but fictions, interesting enough mathematically, but of no significance to physics.

Perhaps the source of Sprague's difficulty lies in his having somewhere seen a reference to the fourth dimension as "imaginary"—which, in relativity, it is. But "imaginary" in mathematics does not mean "unreal". An "imaginary" number is just as "real", in the everyday sense of the word, as a "real" number is. "Imaginary" in math simply means that the quantity being used is the square root of a negative number, and it happens to be quantities of this kind that enter into representation of the time axis in relativity. The use of such numbers is the sole reason why the time axis is called "imaginary"; this doesn't detract from its "reality" a bit.

Actually, however, I believe Sprague's confusion runs rather deeper. He tells us that virtually any measurable category may be used as a "dimension" in math; but he does not tell us the qualification, which is that in doing this kind of work one must be sure that all the categories are self-consistent and can be measured in the same kinds of units. Obviously, length, breadth and height can all be measured in the same kinds of units: miles, etc. News though it may be to Sprague, Time can also be measured in this way; every second of elapsed time is equal to a distance of 186,000 miles along any of the other three axes. In contrast, one could not start out with three spatial dimensions and then add a fourth dimension of, say, temperature; for there is no way of converting degrees of temperature into miles, etc., or vice versa. The selected fourth dimension is incompatible with the other three.

Let's look at the example Sprague gives in his discussion of dimensionality. He offers us an airplane fixed in four dimensions; the spatial three, and Time. All perfectly proper. Now, he says, if we want to add the gasoline in the tank as the fifth dimension, we may do so if we wish.

But we mayn't, I'm afraid. Every possible way of jimmying the amount of gas in the tank into our equations will be inconsistent (except one, which I'll get to in a moment), simply because we're measuring the four space-time dimensions in the same units—miles, etc., or seconds, etc., which are equivalent—but we can't measure the amount of gas in those units.

What we can do, of course, is to convert the amount of gas in the tank into the airplane's potential for staying up, or, in other words, into a time-length. If we do that, however, we are merely reducing the gas-measurement to a time measurement, or, in other words, filling in the data for the fourth dimension of our manifold. The figure will then represent the distance the airplane can travel along the Time axis.

If you'll excuse me for becoming slightly technical for a moment—for there really

isn't any way of discussing this question adequately without eventually evoking the mathematical concepts from which it sprang—what Sprague has actually given us in his example is two different versions of the same relativistic situation, one of them incomplete. These are:

(1) A point-event. This is the airplane fixed at a definite spot upon all four axes (the spatial three and time) with reference to the control tower, or zero-point.

(2) An incomplete event. This is the airplane in motion along the Time axis, from zero (the moment of leaving the control tower) to some point  $n$  when the gas runs out. In order for this to be a complete event, relativistically speaking, Sprague would also have had to have given us the distance the airplane travelled on the three spatial axes during that time. Had he done so, we could have taken all four figures, flung them into the hopper, and come up with the vector of all four motions, which would be the event's world-line—the path which it occupies in the space-time continuum. Since, however, Sprague wants to treat the amount of gas in the tank as a fifth dimension, we'll just have to say that we can't oblige him, for, if he forbids us to reduce that amount to a time-potential, our hands are tied. We can't mix space-time distances and gallons and come up with a meaningful answer, any more than one can divide 12 apples by six oranges.

Now if we travel farther into Sprague's article, we find the old "kill-your-grandfather" argument cropping up as an argument against time-travel, duly buttressed by Aristotle's "Third Law". This part of the argument is not so remote from relativity as you might think; as a matter of fact, it is central, and harks back directly to a statement made by Sprague at the beginning. He notes that Lagrange and d'Alembert introduced the notion of time as a fourth dimension to simplify problems in analytical mechanics; evidently he doesn't know just wherein the simplification lay, for he speaks of these two men dealing with "bodies moving in a manifold...of four dimensions", of which three are the classical spatial ones and the fourth is Time.

The reason why these men introduced this notion is that in such a manifold bodies don't move. That's where the simplification comes in. In four-dimensional space-time, analytical mechanics become analytical statics; everything is at rest—as a matter of fact, everything is rigidly fixed, and the problem then becomes simply one of defining positions. In the space-time universe, nothing moves but the consciousness of the observer, who advances along his world-line until it ends. (Where the consciousness goes after that is a problem for theologians, and one which somehow fails to interest me.)

If, therefore, we were somehow to send the consciousness of an observer backward along his world-line, he would be, in effect, time-travelling; he would re-experience

# HOW MUCH OF YOUR WAGE PACKET ends in *Smoke*? CONQUER THE CRAVING EASILY QUICKLY WITH THE "APAL" AID OF **APAL**



One of the first effects of conquering the smoking habit is that you realise you have more money in your pocket to spend on more vital things. Next, you notice a marked improvement in your health. The remedy for the tobacco habit is in your hands. With the aid of "APAL"—the imitation cigarette which you never light—you can stop smoking immediately, because inside the "APAL" is a crystallised compound. When you draw on it you get a pleasant, cool taste on your palate that satisfies the desire and eliminates the craving for a smoke.

## READ WHAT USERS OF "APAL" SAY

Dear Sirs,

My reaction is, that since I had my APAL two months ago, I have not had one cigarette, and I am now free of the smoking habit, I never think about them now.

F. H., Mansfield, Notts.

Dear Sirs,

This is my third week without a cigarette, thanks to APAL. I definitely feel that the bottle has been won. I was an exceptionally heavy smoker, and was very doubtful if you could cure me. I suffer extremely with stomach trouble, but since giving up smoking my health with regards to this complaint has improved enormously.

Mrs. A. D. R., Stamford, Midds.

Dear Sirs,

About five or six weeks ago I wrote to you asking for an APAL which I received almost immediately afterwards. It is an amazing cure because it makes one hate the taste and smell of a cigarette. I had a cigarette a week after I had been using it a week, but threw it away after two draws as the taste was repulsive to me.

O. A. E., Lytham, Lancs.

Dear Sirs,

I promised I would let you know how my son is progressing with the APAL. It is now five months since he received it, and he has not smoked since. He can be among lots of pals who are smoking and it has no effect whatsoever upon him.

S. H., Aberdare.

Dear Sirs,

I thank you very much indeed for your wonderful cure of smoking. APAL did in one week what I have tried to do for years.

D. G. D., Ebbw Vale, Mon.

Dear Sir,

I had my APAL three weeks ago, and since then I have not wanted to smoke. My friend saw mine and now wants me to write and get one for him.

S. K., West Kingsdown, Kent.

Dear Sir,

I am very pleased with the APAL. I am down from 20 cigarettes to one per day. I did not believe in it at first, it was my husband who insisted I send for one, and I am very glad I did, it is really marvellous.

Mrs. E. G. H., New Cross, S.E. 14.

Send a stamped and addressed envelope for full particulars, free advice, and proof:

## HEALTH CULTURE ASSOCIATION

(Room 133), 245, HIGH HOLBORN, LONDON, W.C.1

# BE PROTECTED IN CASE OF SICKNESS or ACCIDENT



## AMAZING, NEW HOSPITALIZATION

PLAN COSTS  
ONLY **3¢ A DAY**

**NO TIME LIMIT  
ON HOSPITAL  
ROOM and BOARD**



### POLICY SOLD ONLY BY MAIL GOOD ANYWHERE in U.S.

You get CASH BENEFITS for Hospital Room, Board and General Nursing care—WITHOUT TIME LIMIT. Policy pays as long as you stay (free hospital cancellation, Gov. Hospital, etc. excluded). You get lump Cash Benefits for 74 specific Surgical Operations. You get lump Cash Payments for loss of Hand, Eye, Foot.

### ACCIDENTAL DEATH & POLIO INCLUDED!

For added protection, seldom included in ordinary Hospitalization, you get a big ACCIDENTAL DEATH Benefit as well as special INFANTILE PARALYSIS coverage. Check it... all these AMAZING provisions, for only 3¢ A Day for Adults and 1 1/2¢ A Day for Children to age 18. Individual or entire family—birth to age 70—is eligible. A SPECIAL MATERNITY RIDER is available at small extra charge.

### YOU GET CASH!

Benefits are paid in CASH direct to you...regardless of money you collect from other insurance sources for the same disability, including Workmen's Compensation. This means if you already carry Hospitalization, BE SMART...buy this additional low cost policy with its EXTRA CASH BENEFITS to protect yourself more fully against today's high hospital cost.

**FREE** Don't delay. Request  
FREE BOOKLET, No obli-  
gation. No Agent Will Call.

### POLICY PAYS

HOSPITAL ROOM and BOARD  
FOR SICKNESS

For **\$150.00**  
Month

(No Time Limit)

HOSPITAL ROOM and  
BOARD for ACCIDENT

For **\$150.00**  
Month

(No Time Limit)

74 SURGICAL OPERATIONS

**\$10 to \$100**

Policy Provides in Lieu of  
Other Benefits the Following:

ACCIDENTAL DEATH

**\$500 to \$2000**

LOSS OF EYES, HANDS,  
FEET DUE TO ACCIDENT

**\$250 to \$2000**

INFANTILE PARALYSIS

HOSPITAL EXPENSE  
BILLS TO **\$500**

DOCTOR BILLS UP TO **\$500**

ORTHOPEDIC EXPENSE  
UP TO **\$500**

APPLIANCES TO **\$500**

YOU CAN GET MATERNITY

events that he had experienced before. But he wouldn't be able to do a damned thing about these events. He couldn't kill his grandfather. He couldn't even alter the order in which he buttoned his shirt on some specific morning. He could change nothing; for, in the relativistic universe, all events are fixed and unalterable, in the future as well as in the past. The observer is just an observer, going along for the ride. In other words, the relativistic universe is rigidly deterministic, and doesn't allow so much as a cranny for the operation of "free will".

So, in such a universe, Aristotle's "Third Law" offers no argument against time travel at all. It doesn't apply; it's irrelevant. It's inherently impossible for the question even to come up. Of course, this wouldn't make time-travel much fun, for although one could re-experience pleasant things, one could do nothing whatsdamn-ever to change anything, pleasant or unpleasant—so Sprague's quotation from Omar is just as apt as ever.

If Sprague wants to say that it is impossible for the consciousness of the observer to travel backwards along its world-line, I'll have to agree at least that no proof exists that it can be done. The question is speculative. (In other words, not as open-and-shut as Sprague would have us believe.)

On the question of the "reality" of the Time axis as a fourth dimension, at right angles to the other three, however, I stand firm. (Always with the understanding that I am not required to support the entire structure of relativity upon my own narrow shoulders; if the theory should collapse tomorrow, I'll take no responsibility for the fourth dimension and won't pay any debts incurred by it in my name. But I'm speaking now purely within the framework of relativity, as was Sprague.) If Sprague wants to do battle, let him come on. I will allow him all the pipe-cleaners he can possibly want, if he allows me the tensors.

—James Blish

PS: I just took my first good look at that object in the picture in de Camp's article; the debunking caption fooled me when I first looked at it. Regardless of what van Manen may have called it, it's a pretty good drawing of a pseudosphere, the peculiar kind of surface in which Riemannian geometry holds good instead of Euclidean. Maybe friend van Manen was not quite the fruitcake the caption makes him out to be!

NORTH AMERICAN MUTUAL INSURANCE CO.  
East. 152-D Wilmington, Del.

Please send me, without obligation, details about your  
"3¢ A Day Hospitalization Insurance Plan".

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_

State \_\_\_\_\_</

# • SCIENCE brings YOU a New Lease of Life!

And Fuller, Freer, Pulsating Life—not just mere day-to-day existence!

## RADIANT VITALITY for Every Man and Every Woman!

HAVEN'T YOU OFTEN SIGHED AND SAID : "AH, IF ONLY I COULD HAVE MY TIME OVER AGAIN ?"

YOU CAN HAVE YOUR TIME OVER AGAIN—SCIENCE HAS PROVED IT.

HAVEN'T YOU OFTEN WISHED YOU COULD REALLY LIVE ? WITH THE BOUNDLESS ENERGY TO ENJOY LIFE TO THE FULL, TO BE FILLED WITH HAPPINESS EVERY MOMENT FOR THE SHEER JOY OF LIVING ? THERE IS ECSTASY INDEED ! AND IT DOES EXIST—IT DOES EXIST TO-DAY AS THE RARE PREROGATIVE OF THOSE FORTUNATE FEW (PERHAPS ONE IN TEN THOUSAND) WHO ENJOY REAL, POSITIVE, PERFECT HEALTH.

YOU, TOO, CAN HAVE RADIANT VITALITY AND ENDLESS ENERGY—SCIENCE HAS SHOWN THE WAY—THE NEW TRIED, PROVEN WAY, THAT DOES NOT FAIL.

### Glands Control Your Destiny !

From the moment you were born until the moment you die, every bodily activity is controlled by your ENDO-CRINE or DUCTLESS GLANDS. Each evolves its special potent substances, the HORMONES—and their presence in, or absence from, your blood, determines what you are or what you become. Your height, your build, whether you are fat or lean, active or inactive, energetic or weak, clever or dull—your physical and mental life is wholly determined by your GLANDULAR activity.



**IF GLANDULAR Treatment can do THIS for a man of 76, what can it do for YOU?**

*Read this extraordinary story :*

"At 66 I was a decrepit old man with no trace left of my youthful vigour. My body was semié, what hair I had was white, my skin was yellow, wrinkled, dry, my eyes were dull and lacking colour—my sensibility was distressing. I was an old rach with one foot in the grave.

"Then came the great change. I heard of British Glandular Products Ltd., and took their 'TESTRONES' Tablets. In a few weeks I was a new man !

"To-day I have, at 76, more vim and vigour than I had at 30, my incredible vitality astounds even me. I eat like a boy and sleep like a child. I read small print without glasses.

"Once again, at 76, I am experiencing the joys of life to the full.

"(Signed) Digby H. de Burgh,  
Port Washington, British Columbia."

The second of the two pictures reproduced above represents Mr. de Burgh as he is to-day in his eightieth year.

### Perfect, Positive Health !

It is a lamentable fact, but none the less true, that the vast majority of people living to-day do not know what health is, because they have never been healthy. Many of them imagine that they are healthy as long as they have no definite disease or illness. This is far from being the case ! That is merely Negative Health. No one could ever confuse it with Positive Health who has once experienced the latter ! Positive Health is not merely the absence of illness or disease, and those processes that wear out and destroy the bodily tissues ; it is the active presence of a 100 per cent. efficient endocrine co-ordination, which daily rejuvenates and renews the tissues. It fills the body at all times with a boundless reserve of energy that makes itself known by a delightful feeling of slight tension—a feeling of being "wound-up," instantly ready to go anywhere and tackle anything ! This sensation of exhilarating vitality indicates the presence of uniring strength and radiant health which will outlast the passage of the years. People who have this Positive Health do not age as others do, but seem to remain perpetually young and vital. They are, by the accident of chance, the lucky possessors of perfect endocrine co-ordination. Now this glorious health and happiness can be YOURS !

GLANDULAR Treatment automatically normalises endocrine function, eliminates endocrine imbalance and secures perfect endocrine co-ordination ! That means 100 per cent. Perfect Positive Health for YOU !

### Answer these Questions

ARE YOU AS STRONG AND VITAL AS YOU COULD WISH ?

ARE YOU BECOMING STRONGER AND HEALTHIER, HOLDING YOUR OWN, OR DECLINING ?

DO YOU SUFFER FROM LACK OF ENERGY ?

ARE YOU QUICKLY FATIGUED ?

NEVER REALLY WELL ?

ARE YOU RUN DOWN, EXHAUSTED, OR OVERWORKED ?

HAVE YOU SUFFERED FROM NEURASTHENIA OR NERVE STRAIN ?

ARE YOU "NERVY" IN YOUR DAILY LIFE ?

ARE YOU IMPATIENT, A WORRIER, EASILY UPSET ?

HAVE YOU SUFFERED LOSS OR WEAKNESS OF YOUR VITAL POWERS ?

GLANDULAR TREATMENT CAN PUT MATTERS RIGHT. IT IS BASED NOT UPON THEORY BUT UPON ASCERTAINED, SCIENTIFIC FACT !

### How to find out more about it !

British Glandular Products Ltd. have specialised in the supply of Glandular and Hormone extracts since 1929, and their "TESTRONES" Tablets for the male sex, and "OVERONES" Tablets for the female sex, have brought untold benefit to countless numbers of people of both sexes and ALL ages for many years past.

There is no need for complicated expensive treatments—our easily assimilable gland extracts in tablet form will in a short while have a revolutionary effect on your general health and vitality.

Fill in coupon below and enclose 3d. stamp for booklet—"The Essence of Life"—giving you further particulars of these remarkable treatments—or send 12s. 6d. for trial bottle of 100 Male or 100 Female Gland Tablets, which will give you that radiant vitality and maximum efficiency, which alone makes life worth living.

To BRITISH GLANDULAR PRODUCTS LTD. (Dept. TPM. 506), 17 CHESHAM PLACE, LONDON, S.W.1. Please send free Booklet—"The Essence of Life," a 3d. stamp is enclosed—OR please send to following address:

(a) 100 "TESTRONES" Tablets (Male) ; (b) 100 "OVERONES" Tablets (Female), for which I enclose 12s. 6d. herewith.

(Please write in ELOUGH LETTERS and STRIKE OUT tablets NOT required.)

NAME .....

ADDRESS .....

## ILLUSTRATED BOOKLETS AND NOVELTIES

Our VEST POCKET series of ILLUSTRATED COMIC BOOKLETS are the kind that are FULLY ILLUSTRATED with comic characters. The NOVELTIES are the kind MEN want for EXCITEMENT and AMUSEMENT. 16 DIFFERENT booklets and 4 DIFFERENT novelties sent in SEALED envelope prepaid upon receipt of \$1.00. No C.O.D. orders or checks accepted. WHOLESALE PRICE LIST included with orders only.

LIVE WIRE NOVELTY CO., DEPT. 114-A  
3 Orchard Street New York 2, N.Y.

UNUSUAL HARD-TO-GET HERE'S EXCITING BOOKS!  
READING FOR ADULTS!



EACH BOOK is packed with thrills, romance and passion. Over 250 pages of good reading. 2 BOOKS, both different, sent prepaid for \$1.00 in sealed wrapper. No C.O.D.'s.

NATIONAL, Dept. 538  
Box 5-STA. E Toledo 9, Ohio

## \*SONG POEMS WANTED TO BE SET TO MUSIC

Submit one or more of your best poems for free examination. Any subject. Send poem for details and information.

\* Phonograph Records Made  
\* FIVE STAR MUSIC MASTERS  
660 Beacon Bldg. Boston 8, Mass.

ILLUSTRATED COMIC BOOKLETS FOR MEN ONLY! POCKET SIZE!  
THEY'RE TERRIFIC! PACKED WITH RARE CARTOONS AND GOOD CLEAR ILLUSTRATIONS AS YOU LIKE IT, RICH IN FUN AND HUMOR. 20 BOOKLETS ALL DIFFERENT, SENT PREPAID FOR \$1. IN PLAIN SEALED WRAPPER. NO C.O.D.s.



NATIONAL, Dept. 533, Box 5-STA. E, Toledo 9, Ohio

## DRUNK?

Jeopardizing HAPPINESS, HEALTH, and INCOME! Relief may be obtained—permanently and quickly with the U.M.R. ORIGINAL DRUNK METHOD. MAY BE USED SECRETLY! Used by leading alcoholic institutions to help BUILD AVIATION AND ELIMINATES DESIRE FOR ALCOHOLIC BEVERAGES, now available to you. Has the power to stop many drinkers from getting drunk. USES ALCOHOL WITHDRAWAL SYMPTOMS. BREAKS DRINKING CYCLE. Not a remedy for underlying personality maladjustment causing alcohol excesses. DOES NOT FOR ANY PROLONGED PERIOD. INTERFERE WITH WORK OR SOCIAL LIFE. One of many safe, effective, non-addictive, non-habit-forming drugs. Price \$1.50—Mrs. M. D. R., 118. Prepared by pharmacist formerly connected with leading alcoholic institutions. Comes in plain wrapper. READY TO USE, complete with instructions. WHY PAY MORE FOR IMITATIONS? ORDER ORIGINAL U.M.R. METHOD TODAY AND SAVE!

FREE! with orders generous supply special capsules to help tone up appetite and nervous and digestive system.

SEND NO MONEY! NOW ONLY \$4.50!

USE 10 DAYS AT OUR RISK! SATISFACTION GUARANTEED OR RETURN UNUSED PORTIONS AND \$4.50 REFUNDED. Send name and address, pay postage \$4.50 plus postage. Send \$4.50 with order and we pay postage.

UNITED MEDICAL RESEARCH  
Box 428, Dept. U-10, Minneapolis 1, Minn.

## DICE • CARDS

MAGIC Cards—READ THE Perfect Dice, Magic Dice BACKS—Inks, Davis, Poker Chips, Gaming Layouts, Dice Boxes, Counter Games, Punchboards. WRITE FOR CATALOG TODAY.

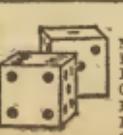
K. C. CARD CO., 852 So. Wabash Ave., Chicago, Ill.

to bypass technical books and journals for a little escape reading. So I have devoured all the science fiction available.

My first introduction to *Future* came yesterday, and my first reaction was surprise at the quality of the reader's section, my guide to the quality of the publication. Hehr is a student who asked some questions, a, b, and c of which are partially answered by a book called, *The Lost Continent of Mu*. Do not accept his conclusions unless you are prepared to translate the mathematics of a dynamic nature found in the clay tablets found by Niven in Mexico. Churchward assumed Hehr's "Man is humorous sap" to be correct. The answer to the riddle is found in pre-historic Sandscript. The letters *AUM* are pronounced "O-m-m-m" and represent animal, u-man (Human or *Under Man*) and Man. A very careful analysis of the dimensions of the "houses" or dwellings on Easter Island will make your blood run cold when logically fitted into the legends of Ankor-Vat. Better have a very sound mental make-up before attempting any prehistoric reconstruction of 50,000 or more years ago. Rog Phillips, in "As Eve Was" has come closer to the actual facts, warped to be palatable to human ego. Man and Gods are synonymous. His c & d are being studied.

It is rare, in a single publication of any kind, to find two complimentary articles suiting a single purpose. The first being de Camp's well-written paper on the Fourth Dimension. The second is, in my opinion, by far the best story: Dye's "Regeneration". The thinker will see the point without comment because the philosophy is too controversial. The "tessaract" is just what any member of the priesthood, theological students, and occultists would see because they do not have the needed concentration to "freeze" 256 simultaneous variables necessary to analyze the fourth dimension. Oddly enough, it suggested the actual form of a four-dimension "solid", even though it is absolutely all wet and cannot be found anywhere. All my models work; naturally you cannot "see" magnetic force, but since the result was predicted by five dimensional (an analysis of the exponent 5 which is the true definition of dimensional) mathematics and geometry.

de Camp, in the second paragraph, has done one of the neatest jobs of contradicting, in five sentences, that I have ever seen. Then the "pipe cleaner" paragraph needs cleaning up. What is the definition of perpendicular? de Camp, I challenge you to describe a common cube in less than four dimensions. The Editor has an outline of the first three dimensions, in usual conventional position, and all the data needed to construct a dimensionless point having real concrete dimensions. I know where two sets of four such points, towering about four hundred fifty feet, high, are. He also has enough data to construct a graphic tessaract, proveable in every detail. In addition there is evidence that  $3 \times 3 \times 3$  is the volume of a cube in units but it is not the cube of 3, the cube is confined



to the exponent and has nothing to do with volume.

—E. W. Mennie, 686 Bruce Avenue, Windsor, Ontario, Canada.

Dear Mr. Lowndes:

Dr. Baron von Schrenk-Notzing, the famous German pioneer Psychical-researcher once said, "Too many exposures only expose the ignorance of the exposé." L. Sprague de Camp is just doing his damndest to prove that true. "The So-Called Fourth Dimension" is another of his attempts to "debunk" historical facts that do not appeal to his "love of science". I thoroughly exposed one of his previous articles in respect to its attack on legitimate investigation of so-called spiritualist phenomena, but our friend, Mr. Campbell, failed to print my reply. For the sake of the intelligence of your readers, and in the hopes that this exposé will stimulate some of them into thinking for themselves, I'm writing this.

It is an old rule in whatever branch of science we seek to study that nothing whatever can replace the *original sources*, least of all biased polemics giving data second and third-handed. If anyone wants to know what Mr. de Camp is trying to talk about, such a person will disregard Mr. de Camp (or me, too, for that matter) and look up for himself the books and references the writer mentions.

In this instance, he will find that de Camp has misrepresented certain facts, suppressed others (oh, for lack of space, naturally!), and apparently invented "others" or has fallen victim to some such inventor. Prof. Zoellner's investigations with the medium, Slade, could not be disregarded on their own intrinsic merit (for there were some successful experiments not normally explicable). As a result, they were to be disregarded on the trumped-up charge that Zoellner, an eminent scientist in the prime of manhood, was "beginning to show signs of a mental breakdown". The best proof of this to most of his critics was the simple fact that he wanted to investigate Slade at all. "Poor Zoellner", as de Camp puts it, (that's really not pity, believe me!) "went mad and had to be confined." Where did de Camp get this story? Queried by the famous publisher, Funk, the *Rector Magnificus* of the University of Leipzig, Dr. Karl Bucher, in a letter dated Nov. 7, 1903, states, "...during his entire studies at the university here, until his death, he

[Turn Page]

### MAGIC TRICKS

3 NEW HAT and COIN TRICKS—disappearing coin and hand coin tricks. Hat and papers disappearing. Never before sold to public. Instructions Cash \$1.50.  
O. R. COLLINS P. O. Box 103 Tillamook, Oregon

### DICE — CARDS — GAME SUPPLIES

Perfects, Flets, Weights, Strippers and Readers  
Made to your specifications

Established 1909 Catalogue upon Request  
HILL BROS., Box D. Salida, Colo.

### BOOKS FOUND!

Any author. Fast service! Lowest prices. Send your wants. NO obligation. Satisfaction guaranteed!  
INTERNATIONAL BOOKFINDERS  
Box 3003-DA Beverly Hills, Calif.

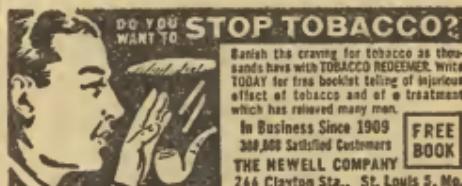


NATIONAL, Dept. 538, Box 5-31a, Toledo 9, Ohio

### BOOKLETS

The kind grownups like. Each one of these booklets is POCKET SIZE, also contains 8 ILLUSTRATIONS, and is full of fun and entertainment. 12 of these booklets, ALL DIFFERENT, shipped prepaid in SEALED wrapper upon receipt of \$1.00, or 24 BOOKLETS, ALL DIFFERENT, shipped prepaid for \$2.00, cash or money order. No orders sent C. O. D. Print name and address and mail to:

TREASURE NOVELTY CO., DEPT. 27-A  
2 Allen Street, New York 3, N. Y.



FREE  
BOOK



### COMPLETE SONG WRITING SERVICE

We write the music for your words without charge on 50-50 basis. We send you records, copies and copy right your song for you in Washington, D. C.

### GUARANTEED PUBLICATION

We guarantee the publication of at least two songs each month by a legitimate B.M.I. music publisher. The writers receive advance royalty and a standard royalty contract. The publisher pays all publication expenses.

### WHAT ARE YOUR CHANCES?

If you have ability your chances are good. Now song-writers become famous every year. Maybe this is YOUR year. Publishers are constantly on the lookout for good songs. Turn your material over to a firm whose business is SONGWRITING.

### WRITE TODAY

SEND YOUR POEM or lyric today for free examination and complete information on our exceptional offer.

### HOLLYWOOD TUNESMITHS

Dept. K-1, 5558 No. Yucca ST., Hollywood 28, Calif.

## Free for Asthma

If you suffer with attacks of Asthma and choke and gasp for breath, if restful sleep is difficult because of the struggle to breathe, don't fail to send at once to the Frontier Asthma Company for a FREE trial of the FRONTIER ASTHMA MEDICINE, a preparation for temporary symptomatic relief of paroxysms of Bronchial Asthma. No matter where you live or whether you have faith in any medicine under the sun, send today for this free trial. It will cost you nothing.

Frontier Asthma Co.  
462 Niagara St.

140-J Frontier Bldg.  
Buffalo 1, N. Y.

# HYPNOTISM

Home study course now available at America's oldest school teaching only Hypnotism and Autosuggestion with

## GUARANTEED RESULTS

"Diploma Issued Upon Completion"  
**INSTITUTE OF APPLIED HYPNOSIS**  
120 Central Park So., N. Y. 19, N. Y.  
Free circular upon request, Dept. 18

## ILLUSTRATED COMIC BOOKLETS

**SELL OUR ILLUSTRATED COMIC BOOKLETS**  
Sell our ILLUSTRATED COMIC BOOKLETS and other NOVELTIES. Each booklet size 4 1/2 x 2 1/2 and is FULLY ILLUSTRATED. We will send 24 assorted booklets prepaid upon receipt of \$1.00 or 60 assorted booklets sent prepaid upon receipt of \$2.00. NO CHECKS. Wholesale novelty price list sent with order only. No orders sent C. O. D.

REPSAC SALES CO.

1 Orchard St., Dept. 150-A New York 2, N. Y.

[Turn To Page 96]

was of sound mind..." (*Encyclopaedia of Psychical Science*—Fodor).

Supposing that Slade confessed to imposture it proves nothing. I may confess to the bank robbery, but until someone can show how I could have done it, my confession is worthless. de Camp has got his facts most unscientifically muddled. It was the confessor, Slade, driven mad by persecution, etc., who "had to be confined" and died an alcoholic!

Much more could be criticized, but let this be enough. A study of the literature of Psychical Research will prove to your readers that it is the most-abused of many subjects; and that there are too many good writers gabbling about them who ought to confine their imaginative talents to fantastic fiction rather than debunkings.

—Walter A. Carrithers, Jr. 463 North 2d  
Street, Fresno 2, California.

(We'll let Sir de Camp meet these onslaughts as he chooses, but we'd like to note in asides that the phrase "if people would only think for themselves" usually means, "if people would only think the way I do, which is the right way, because I didn't take anybody else's say-so, but went out and locked up the original data myself. And, of course, anyone who does that must naturally come to the same conclusions I did.")

Dear Bob:

Dear Dr. BISH.  
Thanks for sending me copies of comments by Messers BISH, McNIE, and CARRITHERS on my fourth-dimensional piece.

I think my differences with Mr. Blish are verbal rather than substantive, so if he finds my terminology unsatisfactory I can only say: sorry, I'll try to do better next time. For instance, he asserts that relativistic geometry is based upon four mutual perpendiculars. True—but only if you use "perpendicular" in a sense different from the common one, which is "forming a right angle to", "right angle" being defined as (the precise language can be varied) "the angle described by one-fourth of one complete revolution about an axis." One can, of course, get a different kind of right angle by some other definition: e.g. by defining it as  $\cot^{-1} 0$  (that is, "the angle whose cotangent is zero") and then defining "cotangent" as the ratio between two of the variables in a four-dimensional space-time manifold, one of them being time.

A similar explanation applies to the meaning of "dimension". I took it, first, in the narrowest or Euclidean sense, where there can be only three, and then in the broadest sense, as meaning "an algebraic variable comprising a member of a manifold." Jim picked a definite of intermediate breadth, that is, something like "a variable comprising one member of a space-time manifold of the fourth degree". This is quite legitimate so long as he doesn't try

# STOP SMOKING IN 3 DAYS—OR MONEY BACK

You can overcome the smoking habit in 3 days, or money back. Safe, pleasant, permanent. The only scientific way. No Will Power necessary. "Conquered the habit in 2½ days. Am delighted."—F.C. "Within 2 days I was free from the tobacco habit."—W.G. "Was a smoker for 2 years and broke the habit in 2 days."—F.N. "I had been an habitual smoker for 19 years. It is 19 days since I had a cigarette and I certainly shan't start again now."—E.P. "I haven't smoked a cigarette for 5 weeks."—J.E. "I used to smoke 20 a day . . . now I have no desire to smoke."—J.M. Recommended by "Health and Efficiency Magazine." Complete course 6s. Details Id. stamp. Sent under plain cover. STEBBING'S, 28 (TPL/9), Dean Road, London, N.W.2. (Established 1928.)

## BODY BUILDING



**Powerful Arms.** Famous Stabbing Course develops 2 to 6 inches rippling muscle on your arms and real arm strength or no cost. Builds arms from wrist to shoulder. 2/9

**Powerful Chest.** Develop amazing lung power and add 2 to 6 inches across your chest, or money back. 2/9

**Muscular Legs.** Develops powerful shapely legs, muscular loins, well-built thighs, strong calves or no cost. 2/9  
**Dynamic Abdominal Strength.** Your abdomen is the cornerstone of your strength. This Course develops energy, rippling muscle, trim waistline, prevents rupture. Complete Course 2/9.

**The Four Courses** only 10/- (or \$1.50). Sent under plain cover.

STEBBING INSTITUTE, 28 (TPL/9), Dean Road, London, N.W.2. (Established 1928.)

## BLACKHEADS

End Blackheads, Pimples, Acne, Enlarged Pores, Red Shiny Nose, and similar skin troubles which mar your appearance—or money back. Amazing new Herbal Cream revitalises, whitens and clears the skin, making it smooth and soft. 3/6 a jar. Full Course 8/6 from

SILCREAM, 28 (TPL/9), Dean Road, London, N.W.2.

## BE TALLER

I Guarantee to increase your height in 12 days or return your money. New gland and spinal discovery in reaches height 2 to 5 inches. "I have gained 4½ inches in height and feel fresher first thing in the morning. My weight increased from 9 stone 4 lb. to 10 stone 3½ lb."—P.D. "I have increased a matter of 3 inches."—G.H. Guaranteed harmless. Full Course 10/- (or \$1.50). Details Id. Sent under plain cover.

J. H. MORLEY (TPL/9), Terry House, Naphill, High Wycombe, England. Established 1926.



## GROW NEW HAIR

Are you losing hair prematurely? Is your hair thin, dull, lifeless? You can have beautiful wavy lustrous hair easily in minimum time. The Robert Allen Hair Treatment promotes hair growth, stimulates dormant roots, corrects dryness, premature greyness, falling hair, scurf, makes the hair full of life. Complete Course for both sexes, 6s. With Natural Hair Grower, 10/-. Money back guarantee. Details Id. Sent under plain cover.

NATURE TREATMENT, 28 (TPL/9), Dean Road, London, N.W.2. (Est. 1928.)

## NERVOUSNESS

Overcome Inferiority Complex, "nerves"; get self-confidence, a strong Will and a strong Personality with "Practical Mind Training," by Lionel Stabbing. New methods; easy to follow. Complete Course 2/9, sent under plain cover.

STEBBING PUBLICATIONS LTD., 28 (TPL/9), Dean Road, London, N.W.2.

## VARICOSE ULCERS. ECZEMA and PSORIASIS

Is your leg painful with wounds or ulcers which do not heal? Is your leg raw, sore, inflamed and burning? Do you suffer from dry scaly eczema or weeping eczema? Do you suffer from swelling, tiredness, heaviness, and aching pains in the legs. Is your scalp or your skin affected by psoriasis eruptions?

Why suffer from these leg or skin troubles? Tremol relieves pain, heals wounds and ulcers, banishes aching and heaviness, soothes inflammation and irritation, checks weeping, clears dry scaling and skin troubles affecting the leg, and the redness and scale of Psoriasis of both the skin and the scalp.

For over forty years Tremol has earned the blessings and gratitude of sufferers. Their experience should be your guide.

### GOOD NEWS FOR SUFFERERS

We have published an illustrated brochure which tells—Why slight knocks may cause years of suffering—Why a scratch refuses to heal—How painful ulcers are formed—Why the skin becomes dry and scaly—Why the leg becomes sore and weeping—The cause of swelling and aching pain—How Psoriasis develops—Why scale and redness form on the skin and scalp—Why Psoriasis is often stubborn. Whether you have suffered for only a few weeks or whether you have suffered for years, the brochure is a revelation. It gives most useful information and records an amazing volume of personal tributes.

Think what it means to you to be free from leg trouble and to walk in comfort. You will do your housework with ease and your shopping becomes pleasure. If you suffer from Psoriasis, think what a healthy skin means to you. No unsightly scale or distressing patches of redness. No irritation and no embarrassing anxiety when you are at work or with your friends. Banish your leg or skin trouble and you can join freely with your friends, in sports recreations and social activities. You can dress with pride. You can share the freedom and happiness of holidays. A new life is opened out to you.

Here is the opportunity you have sought. Send for the brochure and particulars of Tremol. They are of vital importance. Do not despair and suffer needlessly. Write to-day, enclosing 6d. in stamps. Address your letter to:

**THE NATIONAL COLLEGE  
OF HEALTH LTD.**

Department P.E.

GREAT CLOWES STREET,  
BROUGHTON, MANCHESTER, 7.



We will mount an exquisite transparency any snapshot of your loved one. Original returned. This luxurious ring, created by a leading

designer of fine jewelry is made of solid sterling silver, not plated but SOLID STERLING SILVER. A unique keepsake of your loved one to treasure for years. Try ten days free. Hand tinted 50 cents extra. Pay postage only \$1.98 plus few cents postage and tax. Order this popular fascinating ring now. Ring is also available in solid gold for only \$7.95.

### SEND NO MONEY!

Just mail us any picture or snapshot with paper strip measured around ring finger.

**GOLDMART** 22 E 17 St, New York 3, N.Y.  
Dept. DA

Send C.O.D. (SilverRing)  Enclose \$1.98 (SilverRing)  
 Send C.O.D. (GoldRing)  Enclose \$7.95 (GoldRing)

Please hand color ring selected

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

### FACTS ABOUT EPILEPSY

This most interesting and helpful booklet will be mailed to anyone while the supply lasts. We will send a free copy to anyone who writes for it.

Lakewood Neurophen Co., Station A.  
Dept. DA-1, Cleveland 2, Ohio.

### THE BATHROOM READER

A choice and private collection of stories and articles for the man who appreciates a laugh as well as his love—hilariously funny drawings by a master cartoonist. Limited number of copies available. Send \$1.98 in cash or money order.

M L SALES CO.—DEPT. D-1  
241 Church St., New York 13, N.Y.

### QUIT TOBACCO!

Remove all tobacco craving soot in every form and join the thousands who have completely obtained satisfactory freedom from tobacco with the old genuine TOBACCO BANISHER. Send for FREE BOOKLET describing the ill effects of tobacco, and a safe, reliable home treatment. A proven success for 39 years.

**GUSTAF H. GUSTAFSON CO.**  
2325 E. Vickery Blvd. Dept. R Ft. Worth 3, Texas

to claim that his definition is the only valid one; nor does the fact that I use the term with a different meaning imply that I am "confused". My authority for my usages is Dr. Eric T. Bell, one of the world's leading mathematicians, on the fifteenth chapter of whose book, *The Search For Truth*, my piece was partly based.

As for time-travel, Jim brings up the old Parmenidean "eternal now". In such a fixed matrix of point-events, the observer has to be outside the matrix, observing it, and can't possibly be one of the people comprising the matrix itself. If he could, he could presumably go ahead a year and, while he couldn't alter a next-year's event observed during his trip, he could, on his return, take action to forestall it, so that it would never come into existence.

Philosophically, there is no reason why your consciousness or mine couldn't go back to a former time, or why we couldn't go bodily forward in time, though without affecting past events in the first case, or returning to our own time in the second. But these actions need not be considered as time-travel; the first is rather an act of some sort of super-memory ("racial memory" or "consulting the akashic record") while the second can be accomplished, as I said in my article, by anesthetizing the subject and subsequently waking him up again. As for our observer outside the matrix, contemplating the matrix wouldn't be time-travel in the usual science-fiction sense, nor could whatever such an observer does in shifting his attention from one era to another be called "moving" save in the loosest analogical sense.

Regarding Mr. Mennie and Mu, I refer him to my forthcoming book, *Lost Continents* (Prime Press) wherein the late James Churchward is disemboweled, flayed, vivisected, and atomized. The same subject is dealt with more briefly in Willey Ley's and my forthcoming *Lands Beyond* (Rinehart).

About Mr. Carrithers and Dr. Zoellner (which is how I should have spelled it had I known your printer had no umlauts), in 1886 the Seybert Commission for the Investigation of Spiritualism, of the University of Pennsylvania, sent George S. Fullerton, after Zoellner's death, to Leipzig to interview the four witnesses. Of these, three agreed that Zoellner had been in an "abnormal condition" of "mental derangement" or "mental disturbance", which subsequently became acute shortly before his death. From the symptoms described, a snap diagnosis would probably class the disturbance as paranoia, I may have been wrong in stating that Zoellner was confined in a mental institution; I seem to remember that he was, but can't find the source in my notes. For details, see the Seybert Commission's Report (Lippincott, 1887, pp 104-114) and Podmore's *Modern Spiritualism* (p. 191 ff) wherein additional information about the exposures of Slade is given.

—L. Sprague de Camp



Here's a power which every man and woman should have—*can* have. The power to concentrate on the job in hand! To bring it to a successful conclusion! To turn day dreams into reality and become a more efficient, dynamic person! YOGISM offers this invaluable help to **YOU!** Get these **FOUR** revealing Test Courses: (1) How to improve Concentration and achieve Success (2) How to Relax and end Nervous Tension (3) How to Create All-day Energy (4) How to Grow Younger with the Years. These Courses will abolish all feelings of inadequacy, inferiority, inefficiency.

**YOURS** by return for 2/6 only, nothing more to pay. Send at once to The School of Yoga, Suite F/5, Surbiton, Surrey.

I enclose 2/6 P.O. (Crossed and made payable to School of Yoga.) Send by return your **FOUR** Test Courses AND Free Book "Meet Yourself".

NAME ..... (Mr./Mrs./Miss)

ADDRESS .....  
.....

**SPECIAL GIFT COUPON** SEND TO-DAY

**School of Yoga**  
Suite F/5, Surbiton, Surrey.

# "COOL WELDING"

By TOM LYNCH

THE OLDEST system in the world for joining two pieces of metal is by welding. The old smiths would put two hot pieces of metal together and beat them with a hammer until they fused together into one piece. Then came the oxy-acetylene torch and electric welding until nowadays the application of welding techniques to an infinite variety of things is common. You can hardly find a gadget which hasn't been welded somewhere.

Welding is a complicated tricky business however and the high temperatures necessary often preclude its use in a lot of places. An ex-English RAF flyer, a student scientist of no mean ability, decided to look into welding techniques a little further. He's come up with a honey that promises to revolutionize the business. It's called cold welding and it's so idiotically simple that you'll kick yourself for not thinking of it too.

The scientist asked himself, "Why can't I just press two pieces of metal together? They ought to stick." The reason he thought of this was that he'd noted several times when he'd pressed two pieces of copper together in a press and then pulled them apart, they'd come apart at another place than the pressure line which joined them. He put the thought into action.

The result is the new process called cold welding, and which is being experimented with in every factory in the world. It promises great things. The two pieces of metal, similar or dissimilar, ferrous or non-ferrous, are placed together, inserted in a powerful hydraulic press and forced

together under pressure. Presto, they stick!

That's all there is to it. The joints, when sliced through in section and examined under a microscope are found to be legitimate welds, the metals flowing together just as if they'd been melted. It seems so obvious, so reasonable, but it took until now to get into actual practice.

The uses for cold welding are incredibly numerous. Because there is no heat, delicate impossible operations can be done. Because dissimilar metals like aluminum and copper, or magnesium and steel can be joined, new structures and devices are possible. In addition, cost is cut down.

Unquestionably in the next few years we shall see the process used on a large scale and on every conceivable device. Cold welding is here to stay. If you want to see an example of the system try squeezing a couple of wires together in a vise — you might be surprised at the result!

Cold welding is going to eliminate a lot of soldering too. That means that other conductors, like aluminum, can replace precious copper which is in such short supply everywhere. At one stroke our natural resources are given a swift kick into generous enlargement. Out of the workshop and the laboratory come such clever ideas which make for fuller living. As long as there are such resourceful human minds in the world, it is doubtful if even the atomic bomb will ever be able to convert the Earth into a wasteland. The mind is too powerful and sensible for that. Witness obvious cold-welding!

★ ★ ★

## PURE THEORY...?

By CAL WEBB

"ENOUGH of that theory stuff," people often cry, "give us the Facts!" While that yell is often valid enough, particularly in light of all the hot air we hear today, theorizers have plenty of place in the scheme of things. One of the best examples of the value of theoretical speculation is in a study of the kinetic theory of gases, which is a mouth filling phrase for the study of what we now call "molecules."

When gases were first dealt with scientifically, it was in the laboratory, and useful accurate laws were evolved from experimental evidence, without ever once questioning exactly what the nature of a gas was. The study of their pressures and temperatures, the way they absorbed heat and their mathematical behavior were sufficient to some scientists. Others, of a more speculative turn of mind, liked to consider gases as made of countless billions of tiny little billiard balls called molecules, which continually bounced around bump-

ing into each other. They didn't claim that this picture was so; they merely liked to think of gases that way as a method of reasoning further about them.

The conservatives led by a heat-expert named Meyer, vehemently denied the existence of these hypothetical molecules and said that even thinking about them would lead to no good. Enough, he maintained, could be learned by just regarding the thermodynamic aspects of gases.

The results of the dispute are now obvious. We know now for a fact that molecules do exist, even though they began life as a theory. Imagining them as scientists have done led to the discovery of many new properties and laws.

All of which demonstrates that it pays to have original ideas no matter how idiotic they may seem (or unnecessary) at the time. If they help you think, use them. If you like to think of electrons for example as tiny green spheres, do so, if it helps you to reason about electricity!



GUARANTEED DIPPED IN WATER  
FROM THE LUCKY SAINT'S WELL

#### AS LUCK BRINGER.

Another writes: "Since the War my wife and I have been dogged by persistent ill-luck, and we seemed to be sinking lower and lower. One day someone sent us a Joan the Wad. We have never found out what it was, but coincidence if you like, within a week I got much better job and my wife had some money left her. Since then we have never looked back and, needless to say, swear by 'Queen Joan.'"

#### AS PRIZEWINNER.

A young man wrote us only last week: "For two years I entered competitions without luck, but since getting Joan the Wad I have frequently been successful although I have not won a big prize, but I know that——, who won £2,000 in a competition, has one because I gave it to him. When he won his £2,000, he gave me £100 for myself, so you see I have cause to bless 'Queen Joan.'"

**JOAN THE WAD'S** achievements are unique. Never before was such a record placed before the Public. Ask yourself if you have ever heard of anything so stupendous. You have not. Results are what count, and these few Extracts from actual letters are typical of the many hundreds that are received, and from which we shall publish selections from time to time. We unreservedly GUARANTEE that these letters were absolutely spontaneous, and the originals are open to inspection at **JOAN'S COTTAGE**. Send at once for full information about this PROVED Luck Bringer. You, too, may benefit in Health, Wealth and Happiness to an amazing extent.

"**SUNDAY GRAPHIC**" PICTURE PUZZLE.  
No. 175.—"Dear Joan the Wad, I received this week cheque for £71. 8s. 7d. My share of the £1,000 Prize of the 'Sunday Graphic' Picture Puzzle. I have been near winning before, but you have brought me just the extra luck I wanted."—F. T., Salisbury.

WON £153. 17s., THEN £46. 10s. 3d.  
No. 191.—"Genuine account of Luck... since receiving Joan the Wad... I was successful in winning £153. 17s. in the 'People's' Xword No. 178 and also the 'News of the World' Xword No. 280, £46. 10s. 3d., also £1 on a football coupon, which is amazing in itself, as all the luck came in one week."—A. B., Leamington Spa.

WINNERS OF £6. 11s. 1d.  
No. 195.—"My father, myself and my sister had the pleasure of winning a Crossword Puzzle in the 'Sunday Pictorial,' which came to £6. 11s. 1d., which we put down to **JOAN THE WAD**, and we thank her very much."—L. B., Exning.

WON PRIZE OF £13. 13s.  
No. 214.—"Arrival of your charm followed the very next day by the notification that I had won a prize of £13. 13s. in a Literary Competition."—F. H. R., Wallington.

"**DAILY HERALD**" PICTURE CONTEST.  
No. 216.—"Since having received **JOAN THE WAD** I received cheque, part share in the 'Daily Herald' Picture Contest, £3. 16s."—M. F., Notting Hill.

## JOAN THE WAD

is the Lucky Cornish Piskey

who Sees All, Hears All, Does All.

**JOAN THE WAD** is Queen of the Lucky Cornish Piskeys. Thousands of persons all over the world claim that Joan the Wad has brought them Wonderful Luck in the way of Health, Wealth and Happiness.

#### HISTORY FREE FOR A STAMP.

If you will send me your name and address, a 1/- stamp and a stamped addressed envelope for reply, I will send you a history of the Cornish Piskey folk, and the marvellous miracles they accomplish. **JOAN THE WAD** is the QUEEN of the Lucky Cornish Piskeys, and with whom good luck and good health always attend.

#### AS HEALER.

One Lady writes: "My sister suffered very badly for years, but since I gave her a Joan the Wad to keep near her she is much easier. Do you think this is due to Joan or the Water from the lucky Well?"

#### AS MATCHMAKER.

A young girl wrote and informed me that she had scores of boy friends, but it was not until she had visited Cornwall and taken Joan back with her that she met the boy of her dreams, and as they got better acquainted she discovered he also has Joan the Wad.

#### AS SPECULATOR.

A man writes: "I had some shares that for several years I couldn't give away. They were 1/- shares and all of a sudden they went up in the value to 7/9. I happened to be staring at Joan the Wad. Pure imagination, you may say, but I thought I saw her wink approvingly. I sold out, reinvested the money at greater profit and have prospered ever since."

#### £30,000 WINNER.

No. 222.—"Mrs. A. . . . of Lewisham, has just won £30,000 and says she has a **JOAN THE WAD**, so please send one to me."—Mrs. V., Bromley.

#### FIRST PRIZE "NUGGETS."

No. 238.—"I had some good luck since receiving **JOAN THE WAD**. I have won First Prize in 'ANSWERS' 'Nuggets.' I had **JOAN THE WAD** in February, and I have been lucky ever since."—Mrs. N. W., Wolverhampton.

WON "DAILY MIRROR" HAMPER.  
No. 245.—"I have just had my first win since having **JOAN THE WAD**, which was a 'DAILY MIRROR' HAMPER."—E. M. F., Brentwood.

#### WON "NUGGETS" £300.

No. 257.—"My husband is a keen Competitor in 'Bullets' and 'Nuggets.' He had not any luck until I gave him **JOAN THE WAD**, when the first week he secured a credit note in 'Nuggets' and last week FIRST Prize in 'Nuggets' £300."—Mrs. A. B., Salford.

#### CAN ANYONE BEAT THIS?

No. 286.—"Immediately after receiving my **JOAN THE WAD** I won a 3rd Prize in a local Derby Sweep, then I was given employment after seven months of idleness and finally had a correct forecast in Picture Puzzle 'Glasgow Sunday Mail,' which entitles me to a share of the Prize Money."—W. M., Glasgow, C.4.

*All you have to do is to send a 1/- stamp and a stamped addressed envelope for the history to*

**33, JOAN'S COTTAGE, LANIVET, BODMIN, CORNWALL.**

# Join the Well-Paid Ranks of the I.C.S.-TRAINED MEN

MANY THOUSANDS MORE ARE  
URGENTLY NEEDED. PREPARE  
YOURSELF FOR A BETTER  
POSITION AND BETTER PAY.

Ambitious men everywhere have succeeded  
through I.C.S. Home-Study Courses. So  
also can you.



We offer you the benefit of  
our 61 years' matchless  
experience as the creative  
pioneers of postal instruction

If you need technical training, our advice on any matter  
concerning your work and your career is yours for the  
asking—free and without obligation. Let us send you full  
information about I.C.S. Training in the subject in which  
you are specially interested.

The successful man DOES today what the  
failure INTENDS doing tomorrow. WRITE  
TODAY to: Dept. 201A., I.C.S. Ltd.,  
International Buildings, Kingsway, London, W.C.2

USE THIS COUPON

## INTERNATIONAL CORRESPONDENCE SCHOOLS LTD.

Dept. 201A

INTERNATIONAL BUILDINGS  
KINGSWAY, LONDON, W.C.2.

Please send Special Free Booklet describing your Courses

in \_\_\_\_\_

Name \_\_\_\_\_

Age \_\_\_\_\_

Address \_\_\_\_\_

### Addresses for Overseas Readers

Australia : 140 Elizabeth Street, Sydney.  
Egypt : 40 Sharia Abdel Khalek Sarwat Pasha, Cairo.  
Eire : 13 Anglesea Street, Dublin, C.4.  
India: Lakshmi Bldg., Sir Pherozsha Mehta Rd., Fort, Bombay  
New Zealand : 182 Wakefield Street, Wellington.  
N. Ireland : 26 Howard Street, Belfast.  
South Africa : 45 Shortmarket Street, Cape Town.

The I.C.S. offer Courses of Instruction  
in a wide range of subjects including:

Accountancy	Joinery
Advertising	Journalism
Air-Conditioning	Languages
Air and Vacuum Brakes	Machine Designing
Architectural Drawing and Designing	Machine-Tool Work
Architecture	Marine Engineering
Auditing	Mechanical Drawing
Boiler Engineering	Mechanical Engineering
Book-keeping	Mining Engineering
Building Construction, Interior Work and Quantities	Motor Engineering
Building Specifications and Quantities	Motor Mechanic
Business Management	Motor Vehicle Elec.
Carpentry	Municipal Engineering
Chemical Engineering	Office Training
Chemistry, Inorganic and Organic	Oil-Power/Electric
Civil Engineering	Plastics
Clerk of Works	Plumbing
Coal Mining	Quantity Surveying
Commercial Art	Radio Engineering
Commercial Training	Radio Service Eng.
Concrete Engineering	Refrigeration
Diesel Engines	Salesmanship
Draughtsmanship (state which branch)	Sales Management
Drawing Office Practice	Sanitary and Domestic Engineering
Electric Power, Lighting, Transmission and Traction	Scientific Management
Electrical Engineering	Secretarial Work
Eng. Shop Practice	Sheet-Metal Work
Farming (Aable & Livestock)	Short-Story Writing
Fire Engineering	Steam Power Design
Foremanship	Structural Steelwork
Fuel Technology	Surveying (state which branch)
Heating and Ventilation	Telegraph Engineering
Horticulture	Television Technology
Hydraulic Engineering	Water-Power Electricity
Illumination Engineering	Welding, Gas and Electric Woodworking Drawing
	Works Engineering
	Works Management

### EXAMINATIONS—

Nearly all the more important Technical, Commercial,  
Professional, Educational and Civil Service Exams.

I.C.S. Examination  
Students are Coached  
until Successful

(State your Exam. on Coupon  
for free Booklet)

Generous Discount granted  
to members of H.M. Forces





870